

# The School Journal.

Entered at the New York Post-Office for transmission through the mails as SECOND-CLASS MATTER.

Established 1870.

## THE SCHOOL JOURNAL.

A Weekly Journal of Education.

AMOS M. KELLOGG, & JEROME ALLEN, Editors.

### TERMS.

\$2.50 per Year; \$2.00 a year if paid in advance.

E. L. KELLOGG & CO., Educational Publishers,  
21 PARK PLACE, NEW YORK.

### CONTENTS OF THIS NUMBER.

EDITORIAL.....	Page. 90
The Value of Written Rec- productions.....	115
THE MIND.—III.....	116
The Teacher.....	117
Three Incidents.....	117
Educational Thought.....	117
THE SCHOOL ROOM.	
How to Teach Geography.....	118
How Rapid Calculations may be Promoted.....	118
A Drawing Lesson.....	118
Writing Exercises.....	119
TABLE TALK.....	120
LETTERS.....	120
EDUCATIONAL NOTES.....	121
EDUC. MISCELLANY.	
The Planets in September.	123
FOR THE SCHOLARS	
Three Stories—A Lesson.....	123
Golden Thoughts.....	123
Noteworthy Events and Facts.....	123
BOOK DEPT.	
New Books.....	124

New York, September 6, 1884.

This paper exists because there are important things concerning education that MUST BE SAID.

It is published THIS WEEK because there are things that must be said now.

SINCE 1861 there has gone into Southern education through the Freedman's Bureau, \$5,250,000; through the American Missionary Association, \$6,000,000; and through other agencies enough to make a total of more than \$25,000,000.

OUR readers will notice that we have commenced the new department of TABLE TALK. Many things necessary to be said, for which there is no room on this page, will be printed there. Read it carefully and tell us what you think of our plan. It will bring us nearer together in our important work. This is what we want.

ONE of the most striking exhibitions at Madison was the exhibit from the workshop of the Stillwater, Minn., High School. It showed how good practical apparatus for illustrating chemistry and physics can be made at home. The work was done mainly in the odd hours, school days, Saturdays, and vacation; hence the value of the material alone is considered.

Too much cannot be said in praise of Supt. Curtis and his excellent teacher of natural sciences, for their efforts in this direction. They have given the other schools an object lesson of no small value.

ONE of our agents writes that, in several of the institutes he visited, the object seems to be to cram for examination. No doubt

this is the truth, and no doubt it will be for many years. There are some few places yet in civilized lands where people still think the earth is flat and the sun goes around it every day; and we are sorry to know that there are many places where an institute seems to be only a place for preparation for an examination. What a noble object! How grand the results obtained! How inspiring the prospect! When the puzzles are all solved, and the exact per cents estimated, how much better prepared are the teachers for the noble work of building character, stimulating thought, inspiring a love for investigation, and making their pupils better! Did Washington, or Franklin, or Lincoln, or Grant, or Webster gain their greatness by cram and percentage? It is important to know accurately the work of school, but there is a far better way of occupying the time of an institute than worrying over an examination.

IT has been recently said that the amount of human misery, the murders, the fires, the suicides, the defalcations, the loss of property and health, the divorces, the family shame and sorrow stored up in liquor is simply incalculable. In fact, it is not too much to say that every whiskey warehouse is like a little volcano, ready at a moment's warning to send little rivulets of flame and desolation over the country.

If this is true, why don't we protect ourselves? We can do it. It only needs co-operation and will.

But one thing we must do. Teach the young concerning the effects of alcohol on the body, mind, morals, family, and State. Who hath woe? Who hath sorrow? We met a minister, on a recent journey from Chicago, who said he did not like our paper because we said so much about temperance. Is this one of our faults? Let us know. How many other ministers are like him?

WHAT does it mean? In an institute under the shadow of one of the largest private normal schools in our country, most of the young teachers were too wise to need educational papers! "They had never taken any and never intended to." The teachers were found to be further behind the times than anywhere else in the entire State.

It means that there are bogus normals, where the worst kind of empirical work is done; where cramming is systematically pursued, and a carefully-graded system of repression established. It means that there are quacks in education. Better a thousand times for them to be cranks; but not being so gifted, they only know enough to assume a noble name for the express purpose of covering up most ignoble practices. A quack is a liar; a crank is a one-idea-ed saint. His brains are concentrated into one spot, but, bless the Lord, he has brains, which the quack has not. We have no words to express our detestation of the quack in education, who establishes a school and calls it—Normal.

WATCH the growth of the mind. Little is known concerning it. We need a thousand careful observers, noticing every manifestation of instinct, memory, reason, generalization, attention, and imagination. If ten thousand facts could be collected and classified, we should have the commencement of a body of educational science of inestimable value to the educational world. All teachers are in a situation to help along this work. The answer to the following questions will better indicate what ought to be done:

At what age does the child become self-conscious?

How early is the faculty of imagination manifested?

When has the infant its first notion of absolute and relative distance?

When does the power of generalization reach its fullest maturity?

These questions are in harmony with the series of articles on "The Mind," continued in this number. See note in Table Talk concerning those who desire to pursue the subject of *The Mind* as applicable to the work of the teacher.

THE bankers have had a meeting at Saratoga, but while they discussed many questions of great interest they did not touch one topic of more vital importance than all the rest. It is—"How to make bank officers honest?" A president misappropriates and an irregular cashier covers it up, while a dishonest bank examiner mystifies the whole matter to such an extent that it is impossible to tell whether there is any money in the concern or not. In the end, the poor depositor is left without his cash. If there was a single dishonest bank officer in a house there would soon be detection; but it is often evident that there are many. What matters it if they "languish" in prison? They occupy the best apartments and "fare sumptuously every day." What matter if they fly to Canada; laws protect them, and they build mansions and live like dukes. There is no mistaking the fact that the risk from personal dishonesty is far greater than from the failure of crops. The papers call it "weakness of human nature" and "irregularities." It is nothing but downright, old-fashioned stealing, and comes from deliberate depravity. When there is no foundation suitable, the building if heavy, will surely, sooner or later, fall. So men fall. The foundation is wanting. Foundation work! This tells. You cannot reform an old sinner unless you shut him up. What is wanted is a race that don't need reforming. There is a lot of whining sinners who are continually running about for somebody to reform them. Let them go as bad investments. Turn to the young. Here is our hope. That boy, that girl must not learn to be dishonest. The everlasting principles of rightness must be inwrought into their very souls, so that they abhor mean things as a saint abhors blaspheming. Here is our field for work. Could we have a better?

For the SCHOOL JOURNAL.

## THE VALUE OF WRITTEN REPRODUCTIONS.

BY EDWARD R. SHAW,

Principal High School, Yonkers, N. Y.

[In our issue of Aug. 23, we published a selection for written reproduction. This will be followed by others, but the number to follow will depend upon the demand expressed for them by our readers. The following article by Prof. Shaw, will be read with interest.—Eds.]

Not one of all the aids to language training is of greater value than reading to a grade or class a selection, and then requiring them to reproduce it in writing. In examining courses of study from scores of town and city schools, we find a wide recognition of the value of this exercise in directions like the following: "Writing abstracts from memory." "Pieces read to grade and grade required to write them out from memory," etc.

The value of these exercises consists, in the first place, in enlarging the pupil's vocabulary, and that, too, in the most natural way, because he grasps the ideas and thoughts lying behind the words; he grasps them, moreover, in a way that he does not in reading lessons, from the fact that he is to reproduce the thought, and will naturally do so in calling up the identical words of the selection.

Further, the pupil in writing out what has been read to him, is having a most valuable exercise in spelling and punctuation.

In the reproduction the pupil is constructing sentences that are related to each other in thought, and is therefore working in keeping with the idiom of the language—the way that all command of language is gained. How different the sentences of a reproduction, connected as they are in thought, to those detached ones, mechanically made to comply with some stated requirement imposed by the teacher!

Then there is a development of the imagination in these exercises. Of course, it is what we may term the reproductive imagination that is trained, and not the creative; but the reproductive must be made active in order that the creative may develop. In these reproductions there is always food and exercise for the imagination, and this undoubtedly accounts for the pleasure experienced by pupils in doing the work.

But while so much growth in language, spelling, composition, imagination, and appreciation of style results from the exercises of which we are speaking, there is comparatively little of this written reproduction work. It is doubtless in consequence of the fact that teachers are unable to find, at their command, sufficient material for the work. The selections must possess certain qualities, without which they are of little value, and if selections lacking in these qualities are read to a class, the attempted reproduction will result in failure and discouragement both to teacher and pupils. As a first requisite, the selection must be a perfect and striking whole, and for commencement work should be largely narrative. It must be such that the pupil can easily grasp it. It must make upon his mind a forceful impression; for if it leaves only a vague impression, his working it out will be obscure and disconnected.

The selection, in order to produce this vivid impression, must be clear and incisive in its expression of the thought, and if it also possess some charm of style, its value is greatly enhanced.

Two years ago the writer set to work to accumulate selections for his own use. With the books at one's command in a small town, much difficulty was experienced in finding suitable selections. But it was not supposed that the difficulty would still exist when opportunity was afforded to search large libraries. Such, however, was the case, for often a hundred volumes would be looked through with perhaps the reward of but one selection. By continued effort a collection has been made, and each one has been put to the test of the school-room.

That a wide circle of teachers may share in the number accumulated, several of them are to be published in the SCHOOL JOURNAL. These selections

for written reproduction are designed for grammar grades; but many of them can be given to Academic and High School classes as well. The elaboration and fullness of the written reproduction will, of course, be ampler as the pupils are more advanced. It may be added that some of the selections will be within the power of Intermediate pupils. But the teacher must use his own judgment as to this.

Notes will be given with some of them when there are special points to be emphasized.

For the SCHOOL JOURNAL.

## THE MIND.—III.

## METHODS OF DEVELOPING THE POWER OF ABSTRACTION.

Before the thought can be directed to one object, it must be separated from other objects. Abstraction is the power of drawing away a single mental image from its associates. By most authors it is called attention, but a moment's thought will convince any one that there must be the *power of exclusion* before anything can be excluded. This act of drawing away a single idea from its surroundings is *abstraction*; the act of fixing the mind upon one object, and keeping it there, is *attention*. How may we discipline the mind to select single objects of thought, is the question we shall try to answer.

1. By observing similarities and differences. When twenty or thirty pieces of colored paper are placed on the table, the pupils can be asked to select and place side by side those that are alike. In the same manner a pile of stones can be sorted—first, as to size, and then as to weight. In the same manner bottles containing liquids of different colors, can be classified geometric forms arranged, and species of animals and plants inspected. Great care must be used to cultivate all the senses—hearing, smelling, tasting, feeling, seeing, and the faculty of reckoning distance.

In training very young children simple objects must, of course, be used. They can be interested in assorting a pile of sticks of different lengths, or making many lines on paper or the board, of exactly the same length as a specimen given. In all of these exercises the power of *comparing many different objects and classifying them* should be constantly exercised, and great care used in keeping the work so adapted to the learner's advancement that he will not lose interest in what is placed before him. He must not grow weary of what he is asked to do, for, as has been said before, and will often be said again, *interest* is of prime importance.

It must be remembered that this interest is to be obtained and kept through the work itself, and not through outside things. Keep at one line of thought, and in it hold the interest until some definite end is accomplished.

2. The faculty of abstraction can be exercised by the use of *name words*. The abstract idea must be gained before the word is learned. Mr. Sully says that "a little boy, twenty-six months old, while watching a dog panting after a run, exclaimed, with evident pleasure, 'Dat like a puff puff' (locomotive). It would have been folly to have required that boy to pronounce the word 'locomotive' before he had an abstract idea of it, and what is true of this word is true of every important word learned. It is extremely interesting to trace the child's progress in the use of words.

Take the name of foods, for example. At first no name is known, and nothing is abstracted from its surroundings. Everything goes to the mouth. Soon one thing after another is rejected until a few articles are selected from all the rest, and their names learned. It is by no means necessary that the words should be short ones at first. The old plan of commencing with "ab, eb, ib, ob, ub," and then add a letter to each, and so proceed until full words were built up, was a mistaken application of synthetical teaching. True, after a while the child had formed "abstract, ebony, ibex, object, ubiquity," etc., but in what condition was the mind left, and what power beyond memory was cultivated! In fact, nothing was accomplished, for when we come to consider what memory is, and

how it is strengthened, we shall find that this faculty, under this old empirical way of teaching, was weakened rather than made strong.

Action words are readily learned. It is comparatively easy to gain abstract notions of running, leaping, rocking, laughing, etc., and their names. It is harder to teach abstract ideas of objects and their names. We can think abstractly of boy, girl, stick, but not as easily as of laughing, singing, and eating.

But when we come to teach the abstract idea of larger things, made up of many simples, we shall find difficulty. For example, we wish to teach the idea of a mountain. A small sand elevation is fashioned, and, pointing to it, we say, "mountain." Smoke and fire are made to issue from its summit, and we now say, "volcano." If we are not certain the abstract ideas are in the mind, the words should not be pronounced. According to the principles of good teaching the words, mountain, volcano, city, ocean, river, should not be uttered—the learner should not hear them—until the pictures of them, apart from all other objects, are clearly in the mind. You say, "Is this possible!" We answer, *It is possible*.

Pass beyond this boundary line, and permit the child to use words conveying to his mind no correct idea, and we enter at once into the land of rote teaching, and the old education.

You can now only cram, regardless of present or future consequences. The very first principles of the philosophy of the mind oppose this teaching. Great use may be made of pictures. The larger the idea to be abstractly learned, the larger should be the picture. An example of this is afforded in the words, ocean and city. It must be remarked that connecting words and particles, as and, but, the, by, of, in, an, a, etc., are used without thought. They really convey no idea. They are only words "thrown in" to fill up the spaces at first. The child says: "Cow, garden!" "Fire, house!" "Mother, sick!" "Finger, ache!" The filling-up words add no additional meaning.

3. Abstraction is next cultivated by learning qualities. These must, of course, be apprehended by abstracting the ideas from objects. This is difficult. The teacher must proceed slowly and carefully. In future articles, instruction as to the correct method of proceeding will be given. At present only a few hints can be thrown out. Take, for example, the word "good." It is at first associated with some person, as mother, then with some thing, as apple. It is then contrasted, as with a rotten apple, or bad person. Its opposite must of necessity be learned at the same time. Soon the child has the abstract idea of "goodness," "badness," "kindness," "cruelty," "love," "hate." Here we have a difficult lesson, but nevertheless one of great importance, in fact the value to be attached to the learning correctly of such abstract ideas as we have suggested cannot be overestimated. The lesson must not be given early in the pupil's life, but gradually the abstraction gains possession of the mind. When the time comes that the mind apprehends abstract qualities, a stage of advancement has been reached indicating great mental power. Teachers must learn to watch the commencement of this period, for it marks an exceedingly important era in mental growth.

4. The highest abstract power possessed by the mind is mathematical. We do not say that a mathematical mind is the most perfect type of intellect, but it unquestionably marks the most complete power of abstraction. No human mind can comprehend 1,000,000, and it has been stated that man can conceive even 100. When the mind comes to think abstractly of quantity, it has gained a wonderful power. Children find it difficult to think of even the quantity 10 without visible objects. But teachers need not trouble themselves on this point, for numbers can and should be used to express operations which may be understood, even though the quantities represented by each separate number can not be abstractly conceived. For example, we can understand the operation  $5754 \times 7674 = x$ , without abstractly knowing 5754 or 7674. But more of this after a while. This is enough for this week. Attention next time.

**THE TEACHER.**

BY PRESIDENT PORTER, Yale College.

**HE OUGHT TO KNOW MORE THAN HIS PUPILS.**

Exactly how much, it is not always easy to decide. The doctrine now prevails, and in general should be accepted as true, that the more a teacher knows and has thought upon any subject, the more successfully will he communicate to one who has learned and reflected less than himself. Nevertheless, the consummate philosopher does not always prove to be the most successful defender and expounder even of his own theories, and the clearest and most logical thinkers are by no means uniformly the best teachers. Why this should be we have not far to seek. The accomplished philosopher too often measures the capacities of his pupil by his own. He is of all men the most incapable of appreciating the fickleness of the attention of the pupil, the feebleness of his memory and the narrowness of his intelligence. His pupil may be slow to apprehend simply because the facts are unfamiliar and the powers of attention are unformed. The philosopher too often begins with the remote and general, which he fails to justify and illustrate by the familiar and the incidental. He forgets that the learner must invariably move from the individual to the general, from facts to principles, from examples to truths, and that he must first make his way from starting post to goal before he can return from goal to starting-post.

We grant that the philosopher is in no sense disqualified for success as a teacher, simply because he is a philosopher. But we cannot overlook that he is often eminently unsuccessful because he fails to distinguish the order of reflection upon knowledge when it has been gained, and the order of imparting information and exciting thought in one who has never reflected. Failures of this sort are by no means confined to teachers by profession. They are observed in lawyers and preachers, in essayists and critics, in conversation and harangues—among those trained in the schools and those schooled only by life.

One of the great perils of our modern education is that in aiming to be too scientific in form it fails often to be scientific in fact. Many of our elementary text-books are striking examples of this truth. The attempt to teach the alphabet after what is called a truly scientific method is an example. It cannot be denied that to too many pupils the mysteries of the parsing of our sweet English tongue seem awful and recondite.

**HE MUST BE HIMSELF.**

The living teacher is needed to impart the truth as it is shaped and colored by his individuality. Every man who would teach his fellow-man must meet him as a person, and it is through his personality that he can impart what he has to give. Truth must be approached from his own view and arranged in an order peculiar to himself. It must be made fresh and living by illustrations drawn from his personal life and be warmed by the fervor and sympathy which springs from his own heart. At the same time we cannot overlook another fact as patent, namely, that modern teaching with its peculiar and undeniable excellencies has done much to weaken or to eliminate the personal element, and tends strongly to proceed further in this direction.

The teacher must adapt his instructions to the individual capacities and temper of his pupils. The ideal conception of the teacher not only requires that he be a man who teaches what he believes and knows, after the manner in which he has learned or holds it, but preëminently that he should study the capacity of each pupil to receive what he can give, adapting it to his individual genius and temper. That the tendencies of modern education set strongly toward overlooking the individual in the class will be denied by few.

**HE MUST EXAMINE.**

Under this title we include every form and method in which the pupil can be required to reproduce what he has learned, whether it be more than once in a day or only once in a term or a year, whether with the sharp conciseness of an oral reply to a

question or the fulness of an oral discourse, or the deliberateness of a written disquisition. That examinations or their equivalent are indispensable to enable the teacher to adapt his teachings to the capacities of his pupils is too obvious to need any enforcement. That the pupil needs to acquire under the stimulus that comes from knowing that he must retain what he receives and reproduce it when called for, is self-evident. That these examinations should be frequent and varied in form and thoroughness ought to be equally obvious. That the teacher is at liberty to make a record of his pupil's performances, if he can do so without hindering his own freedom in teaching, is self evident.

**HIS RECITATION.**

This is the origin as it is also the history of the so-called "recitation," a word peculiar to this country in that special sense. The exercise itself is the natural if not the necessary outgrowth from the original and the best method of teaching by conversation; as when Socrates first caught and cornered and then alternately fascinated and tantalized any young man on whom he fixed his eye in the streets or market-places of Athens, or when Plato in asking or answering his own questions soared into those flights of mythological wisdom which his auditors could not and would not restrain, or as when Aristotle subjected the pupils with whom he walked up and down to a sharp fire of cross questioning.

**THREE INCIDENTS.**

I.  
A teacher was examining the slates of a class of beginners in writing, after some dictation exercises. When nearly through, one whispered, as her slate was being examined, "We are doing ever so much better; are n't we, Mrs. B——?"

"Why do you think so?"

"Because, so far, you have hardly had to tell one that they forgot to begin the sentence with a capital, and end it with a period. And you read them ever so much faster, too."

How very carefully a teacher is watched.

## II.

Some girls of thirteen, when told of the writer's intention of visiting them at school, eagerly said: "Oh please don't, please don't come. You are not used to seeing scholars act as we do. You could not stay. We would not have you see us there for anything."

"Why do you act in this way? Do you study?" was asked.

"We did study at first, and behaved real well, but the teacher never said a word, and did not seem to care, and some were having fun all the time, so now we all act alike. There is no use of trying to study, or anything."

How many pupils in every school are discouraged and give up trying, because the teacher "does not seem to care"?

## III.

A teacher was troubled by the over-crowded condition of his school-room. Appeals for additional seats were disregarded by the directors. One day, when all the available seating facilities were in use, and a boy was ensconced in the teacher's chair and a few more on the floor, he sent for his Board. Mr. A. came in, and was warmly received. He looked about somewhat hesitatingly, and said, "Well, Mr. A., I should be glad to give you a chair if I had one, but I am just out. Make yourself at home; sit down on the stove." Mr. A., to the amusement of the pupils, did so—the weather being warm, there was no fire. Shortly after, director number two appeared. He was received with equal cordiality by the teacher, and, from necessity, took his position with number one. Number three put in an appearance a little later, and was offered a place by the side of his official colleagues. But about that time it began to dawn upon the minds of the triumvirate that the teacher was less innocent than his 'childlike and bland' countenance indicated. The president called him to one side with, "Mr. R., I am a little busy, and will call again. How many do you need?" It is needless to say that an adequate supply of desks, with all the modern improvements, were on hand in the shortest possible time.

**EDUCATIONAL THOUGHT.**

BY PRES. HUNTER, Normal College, N. Y. City.

1. **THE USE OF THE THREE R's.**—A knowledge of the three R's alone is not an education; it furnishes simply the working tools by which an education may be subsequently obtained; but if the children go on farther, these tools may become edged tools to work mischief to society. The communistic and socialistic leaders are usually men familiar with the three R's and nothing more. Let the great common school system be reduced to the three R's—to a charity system—and the next generation would discover, to their cost, that there could be no security for property.

2. **WHAT NECESSARY, AND WHAT ORNAMENTAL.**—Who is going to define what branches are "ornamental" and what "necessary"? Drawing, for example, is highly "ornamental;" and yet the state has pronounced it so highly "necessary" that a law has been passed making instruction in it compulsory. Some declare the study of English grammar not only "ornamental" but useless; while others insist that it is the most "necessary" study of all. There will be the same differences of opinion in regard to geography, history, higher arithmetic, algebra and whatever else may be taught in the grammar schools. Even the reformers themselves could never agree upon the branches of study that are "necessary," nor upon the extent to which they should be carried. They could find but one logical resting place in the course of study, to wit: instruction in reading, writing and the elementary rules of arithmetic. The higher education can be defended; instruction in the three R's might be supported by plausible arguments; but between these two there is no middle ground on which reasonable men can agree to stand and say, "Thus far and no farther shall the children be instructed." The friends of popular education should remember that those who are striking at the head mean to injure the body and the limbs of the common school system.

3. **THE GREAT LEVELER.**—The common school system in its integrity is the great democratic leveler; but it always levels upward to a higher plane. The common school receives the different nationalities, the rich, the poor, the high, the low, as into a great mill, and grinds them all out good American citizens. This mingling of the different classes has an admirable influence on all; the rough are refined, the delicate are made robust; and the influence of the school reaches the home circle and strengthens and refines it. It often happens that a boy or a girl belonging to the poorest class, who has fought his or her way through college, in spite of many obstacles, will elevate the whole family and be a blessing to the community. As long as the colleges exist the common school system can never be reduced to a charity system; abolish them and charity schools will be the inevitable result.

4. **ESSENTIAL TO A NORMAL SCHOOL.**—A normal institution without a training department is like a medical college without a dissecting room. In fact, without a training school the institution ceases to be normal and becomes academic.

5. **THE INEXPERIENCED TEACHERS IN A STRANGE SCHOOL.**—Let any experienced teacher enter a strange school, in a strange place, under a strange principal, and take charge of a class of boys whose very names he has not yet learned, and I am very much mistaken if he does not encounter many difficulties during the first few days. Suppose that the boys should discover that this experienced teacher is not their permanent teacher, that he is only on trial, the difficulties and annoyances of the situation would be increased twofold. The best disciplinarian in the public school, under these circumstances, would sleep on no bed of roses. How much worse, then, for the young and comparatively inexperienced graduate!

*Note.—From report of the Normal College.*

If the blotting paper is moistened with a solution of oxalic acid, it will be more valuable to the pupils. It not only absorbs ink as usual, but will also remove ink blots and speckles, provided the ink is of the common kind.

## THE SCHOOL-ROOM.

For the SCHOOL JOURNAL.

## HOW TO TEACH GEOGRAPHY.

## A HINT.

This will not be an exhaustive article, simply suggestive, showing how geography may be pleasantly and effectively taught to intermediate pupils. Most teachers find it difficult to create pictures of localities in the mind, in fact, it is a little doubtful whether many teachers have such pictures themselves.

## I.

As we write, the papers are full of accounts of Lieut Greely's reception on his return from the frozen North, having penetrated the wonderful distance of *four miles* further than any former explorer. Omit the geography lesson for a few days; fasten in full sight all the pictures you can get from the illustrated papers; read the interesting accounts of the privations, suffering, and death, from the weekly papers, talk about what is read; have a map of the Arctic regions drawn on the board; point out exactly the various places where the narrated events occurred; encourage the pupils to bring in all the facts they can; let them talk and ask questions to their heart's content; make the subject *red hot* for several days, and then close by securing carefully written accounts of what has been said. Depend upon it, more real geography of the Arctic regions will be learned than in a lifetime of conning a book, or reciting stereotype forms. You will secure liberty, freedom, life, and light. What can be more valuable? Interest is aroused. What is better? Such an exercise properly intensified will stop a thousand petty annoyances, and heal a million more little difficulties. It is like a rousing thunder shower after a long drouth; it wakes things up.

## II.

Our papers are also just now telling about Lieut Shufeldt, in Madagascar. They tell us that during a nine days' journey, in every town or village through which he passed he was the object of the greatest personal attention and the most marked official courtesy. In most places the officials swept up the village in his honor. The governor gave him a military escort to specially guard his palanquin, and wherever he went "the natives rushed with new woven mats to spread over their floors" and contended for the honor of entertaining him. Presents of all kinds were lavished on him, and it is expressly added that these tokens of welcome were marks of honor "for the flag and the nation" which Lieut. Shufeldt represented. When he reached the province of Imerina the Queen and the prime minister sent out officers to meet him, to inquire about his health, and to escort him to a quiet suburb of the capital, where distinguished guests rest before making an official entrance into the royal city.

This entrance was apparently made a gala day, a company of royal guards, with ten officers of high rank and a military band escorting him to the apartments assigned him. Ten of the Queen's horses drew a state palanquin containing the guest, and the band necessarily played the Malagassy anthem and the "Star Spangled Banner." Presents of a fat bullock from the Queen, and of sheep, turkeys, geese, fowls, rice, and fruits from the prime minister and others, quickly followed. But these honors were outdone at the palace, over which the red and white flag was displayed, when, after walking between the lines of leather helmeted troops, with their crossed bayonets, to the gate surmounted by the Hova eagle, he found the Queen on a scarlet throne, in a light pink satin dress, trimmed with gold lace, and with her gold crown on, while all the cabinet ministers and a double row of Malagassy princes and princesses stood about to render his presentation by the foreign secretary still more imposing. The friendly hand-shaking which the Queen substituted for formal bowing, completed the signs of good-will.

Lieut. Shufeldt expressed a wish for the Queen on the part of the United States, of a long, pros-

perous, and peaceful reign, and of general sympathy for those people who are earnestly endeavoring to assume a position among the civilized and Christian family of nations. The reply of the Queen expressed an earnest desire for the advancement of civilization and the progress of commerce and for friendship with all nations, especially with the United States. The subsequent banquet, given by Ravoninahitrimiarivo, the Foreign Secretary, was a little more effusive in feeling. "To such a people," says Lieut. Shufeldt, "it is impossible that the sympathy of every American should not be extended. The destiny of Madagascar and the prosperity and happiness of her people will be watched by my country with interest, not unmixed with anxiety."

The reading of this, interspersed with questions, explanations, and remarks, with a large map drawn on the board, will teach more concerning the geography of Madagascar than the ordinary congressman ever knows.

We would suggest that an outline map of the state in which the exercise is conducted be drawn on the same scale as Madagascar. This is very important.

## HOW RAPID CALCULATIONS MAY BE PROMOTED.

BY PROF. J. C. DOLAN, Pittsburgh, Penn.

In rapid adding special prominence should be given to the grouping of 9 and 1; 8 and 2; 7 and 3; 6 and 4; and 5 and 5. In adding a column composed of 1, 1, 8, 2, 7, 3, 6, 4, 5 and 5, the pupil should simply say. "Ten, twenty, thirty, forty, fifty." In adding a column composed of 1, 2, 7, 1, 3, 6, 1, 4, 5, 2, 2, 6, 2, 3, 5, 2, 4, 4, 3, 3, 4, the pupil should group each three contiguous figures, and say, "Ten, twenty, thirty, forty, fifty, sixty, seventy." He should also be encouraged to complete the ten, even when the numbers do not naturally fall into such groups. In adding 7, 4, 4, 6, 8, 4, 6, 7, 7, he should think, "Ten with one over; fifteen: twenty with one over, twenty-nine; thirty with three over; thirty-nine: forty with six over; fifty with three over." If adding orally, he would say, "Eleven, fifteen, twenty-one; twenty-nine; thirty-three; thirty-nine; forty six; fifty-three." So that while his mind observes the completion of each ten his words do not indicate it.

To add rapidly, the sense of sight must be well trained, and the faculty of seeing correctly, well subordinated. For sight exercises, the addends should be well interspersed with naughts.

In concert exercise in multiplication, the teacher, after he has written the multiplicand and the multiplier, draws a line under the multiplier from left to right, and holds his chalk on the end of the line till the pupils are ready to give the first result. When he raises his chalk, if the multiplicand is 396475, and the multiplier is 2, the pupils say "Ten." He writes the 0 and holds his chalk on the board till the pupils have had time to think through to the next result. When he raises his chalk they instantly say "Fifteen." He writes the 5 and rests. When he again raises his chalk, they say, "Nine. Their next response is "Twelve;" their next, "Nineteen;" and their last, "Seven."

In dividing 9882774 by 2, the teacher draws a line from right to left, and rests on the left end of the line till the pupils have had time to determine what the first figure of the quotient should be. He then raises his chalk, and the pupils say "Four." All that the pupils say while solving this problem is, "Four, six, nine, one, three, eight, seven."

In subtraction, after the teacher has written the minuend and the subtrahend on the board, he draws a line from left to right, under the subtrahend, and holds his chalk on the end of the line until the pupils have had time to determine what the first difference figure should be. He then raises his chalk, and the pupils, with one accord, name the first figure. The teacher writes the first figure, but does not take his chalk from the board till the pupils have had time to determine (mentally) what the next difference figure should be. He then raises his chalk, and the pupils name the second

figure. The pupils should have ample time to think before the signal for results is given. In the following problem in subtraction, the pupil says, simply, "Nine, eight, one, four, six."

Each of these blackboard exercises should be given as the pupil is about to enter upon the work which the exercise is intended to cover.

NOTE.—Prof. Dolan is the author of very excellent Drill Tables, from which this exercise is taken. Teachers will do well to address him.

## A DRAWING LESSON.

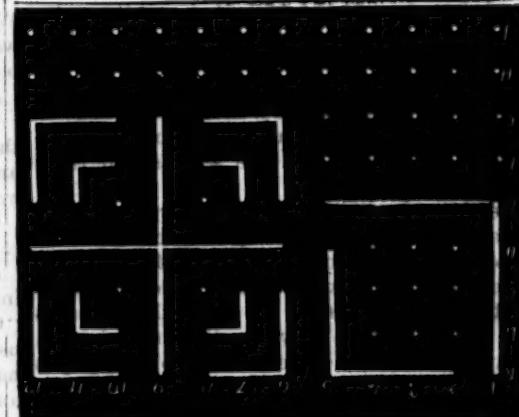
## FOR PRIMARY PUPILS.

OBJECT.—To teach the definition of right angles, and to draw the same.

MATERIAL.—If possible, provide each pupil with White's Exercise Book No. 1. If not, prepare papers by covering them with rows of dots placed 1-4 of an inch apart in each direction. Beginning at the left number, the vertical columns of dots toward the right. Beginning at the top letter, the horizontal rows toward the bottom. One copy may be prepared with analyne ink upon writing paper, and as many as needed printed off by using a gelatine pad.

METHOD.—"Where in this room do you see a corner? Make a corner by holding your book part way open. Another name for a corner is an angle." Make an acute angle with two rulers.

"How does this angle compare in size with the angle in the window-frame? (See that they compare the angles, not the length of the line forming them.) What other difference do you see besides the difference in size?"



Make a right angle with the ruler and hold it in different positions. "Is the size of this angle changed?"

"How do these lines meet? (The names of lines, parallel, perpendicular, etc., have been previously taught). When lines meet each other perpendicularly, right angles are formed. How are right angles formed? What, then, are right angles? Make a right angle on the board; with your books; find some in the room.

DICTATION.—"Place your pencil on dot 1 in row A. Draw a vertical line to 1, E. Continue with a horizontal line to 4, E. What have you made? (A short exercise in finding designated dots may be previously given if necessary.)

Pencil on 2, A. Draw horizontal to right three spaces (dots); vertical line down four dots. What is made?

Draw vertical from 9, A to 9, G; horizontal from D, 6 to D, 12. How many right angles are made? Draw from 10, A to 12, A. From 12, A to 12, C. From 10, B to 11, B. From 11, B to 11, C."

Continue dictation until the design is completed.

## WRITING EXERCISES.

## SIGNALS FOR COMMENCING AND CLOSING.

(The Teacher giving only the Number.)

Take position. If pupils are to sit with right side to desk, then all must turn with right side to desk at this signal.

2. Adjust books. In the proper position for writing, but not to open them.

3. Adjust arms. Arms are bent at right angles on the desk.

4. *Find place.* By inserting the right hand between the leaves of the book at the proper place for opening.

5. *Open books.* All at the same instant.

6. *Hands on ink wells.* When two pupils in one seat use the same ink-well, the one on the teacher's left as he faces the class will place his hand upon the ink-well.

7. *Open ink-wells.*

8. *Take pens.* Pens should always lay on desk with the points toward the right; it is much easier to take them up and get them in position for writing when they are in this position.

*Ready,* means to place the pens exactly over where the pupils are to commence writing before taking ink, or if they are to trace on the copy where it commences. If the copy is to be traced, the signal "Trace" is given; if the pupils are to write, the signal "Write" is given.

9. *Take ink.* The pupil opening the ink-well is to dip in first and hold the pen near the ink-well, until the pupil occupying the same desk has taken ink, and at the signal "Ready," all draw their hands back to place.

*Caution:* Pupils are not to commence writing until the signal "Write" is given.

"Rest" is a signal to be given at any time when the pupils are desired to stop, and has the same significance that "halt" would have if given to a well-drilled military company, and should be as promptly obeyed.

#### SIGNALS FOR CLOSING.

10. *Wipe pens.* Every pupil should be provided with a pen-wiper.

11. *Lay down pens.* Points to the right.

12. *Hands on ink-wells.* Same hands that opened them.

13. *Close ink-wells.*

14. *Close books.*

15. *Position.* Front face, body erect.

16. *Place books and pens* in proper order for the monitor to collect.

Monitors collect books and pens.

We have given in detail our method of opening and closing an exercise in writing. To many not familiar with it, it may seem slow; and if they have but little time to write, as occupying too much time; to such we would say that a well-drilled class can be opened and closed much quicker by doing it with system than without. To those that think there are too many signals, we would call their attention to the fact that every time the exercise is opened and closed, whether systematically or not, the same motions are really gone through with by the pupils, and the numbers 1, 2, 3, etc., can be given as rapidly as the pupils can make the motions.

But why not condense and give only one number for 4 and 5, or 6 and 7? says one. To avoid noise. If 4 and 5 are given as one signal, one pupil will find the place and open his book before another has found the place; and the same is true of 6 and 7—the opening of books and the opening of ink-wells, instead of occupying a single instant, as when two signals for each is given, will occupy a very perceptible space of time with the rattling of the books or the rattling of ink-well covers. In another respect these signals differ from those usually given, that the numbers are continued for closing the exercise, instead of going back and commencing with 1, 2, 3, etc. We prefer this, because the pupils know exactly what the signal means, and what part of the exercise is going forward, and it is no more difficult to learn sixteen signals for sixteen motions than eight numbers, each number representing two movements. We do not wish teachers to think these signals cannot be departed from according to circumstances.

We say to teachers, we have given you signals that we have found best adapted to the majority of schools, and given them in full; take them, amend, abridge, or alter in any way that will better adapt them to your respective schools. What we wish is to impress upon teachers the advantages of having some systematic method of opening and closing the writing exercise. Improve upon our method as much as you can; we shall be the last to find fault.

#### ARITHMETICAL DIVERSIONS.

We strongly recommend that Arithmetical Diversions be resorted to both in and out of school. We have known "stupid" pupils to gain their first mathematical inspiration from a game, and this, too, after their cases had been considered hopeless both by themselves and by their teachers.

#### JACK-STRAWS.

Upon ordinary wooden tooth-picks, which may be bought at almost any store at the rate of one or two cents a hundred, write numbers. Bend a piece of small wire, so as to form a hook at one end, and if a handle be desired, press the other end into a wooden match or small bit of soft wood. With these materials the familiar game of "Jack-straws"\*\* may be played.

Each pupil should be required, at the end of the game, to add up the numbers on the tooth-picks that he has obtained, and that pupil the sum of whose numbers is largest wins the game.

The numbers used should be large or small according to the abilities of the pupils. Fractional or mixed numbers may be used with advanced pupils.

The game is, perhaps, most interesting when played by only two pupils; there can be, however, as many groups of two as may be desired.

#### DRAW GAME.

The tooth-picks described above may be placed in a box or be held in the hand so that the numbers cannot be seen; each pupil may then draw, one at at time, ten tooth-picks. All may begin to add at the same time, and, supposing that there are five pupils to play the game, the first to get a correct result may be allowed to add 20 to his score, the second 15, the third 10, and the fourth 5, whilst any pupil who makes a mistake in addition may be required to deduct 25.† If, after the addition has been performed, each pupil will write his numbers on the board with the sum that he has obtained, the others can readily test the accuracy of his work.

#### ARITHMETIC MATCH.

After the leaders have chosen sides, place in a box or hat the names of the pupils on one of the sides, and in a second box or hat the names of the pupils on the other side.

In asking new questions call upon the pupils in order, first from one side and then from the other. Give each pupil a reasonable time in which to answer a question,—say until two pupils on the opposite side have indicated by a show of hands that they have the answer. If a pupil gives a wrong answer, or fails to get an answer within the time allowed, the teacher may instantly draw and call the name of some one on the other side. The last pupil to miss a question must pass over to the opposite side, or, if the time be limited, all who miss may withdraw from the game.

#### BROTHER JONATHAN.

Mark out on the floor, or on a board, or on the ground, a square with sixteen compartments. Place different numbers in these compartments, so that the smallest numbers shall be next to the largest numbers. At a suitable distance from the square draw a line, behind which each player must stand while he throws a cent at the square; the player's score for each throw is the number assigned to the compartment in which the cent rests; if the cent rests outside of the square or upon one of the lines the throw counts naught.

The compartments are sometimes made of different sizes; in this case the largest numbers are placed in the smallest compartments.

Each player is often allowed five throws at a time.

That player wins the game who has the highest score after twenty five throws.

#### HICKORY DICKORY DOCK.

This game is very much like Brother Jonathan. A smaller square (sometimes a circle) with fewer

\*The Jack-straws (tooth-picks) are dropped on a table so as to fall helter skelter in a heap. Each player tries to draw away with his hook as many straws as possible without joggling any of the others; if a player moves or joggles ever so little any straw except the one he is taking away, then he must give way to the next player.

†When there are more or less than five in the game the teacher may vary these numbers.

compartments is drawn on a slate. The player closes his eyes and moves his pencil in circles over the slate, while he repeats the doggerel,

Hickory Dickory Dock,

The mouse run up the clock,

The clock struck one and down he ran,

Hickory Dickory Dock.

As he says the last word he strikes the slate with the point of the pencil, and then opens his eyes to see what number he has struck. The player who has the highest score after ten trials wins the game.

#### TO FIND A NUMBER THOUGHT OF.

Let the pupil think of some number, but without telling what the number is. The teacher then makes the pupil perform a series of operations on that number; as, Multiply by 3, add 9, divide by 3; multiply by 4, subtract 6, divide by 2, subtract 6 again. What is the result? The instant the teacher learns the result she tells the pupil what number was thought of.

*Key.*—Suppose the number thought of to be 5. The teacher denotes it by some letter, as *N*, and performs the same operation on *N* that the pupil does on 5, thus:—

Pupil.	Teacher.
Number 5.	<i>N.</i>
Multiply by 3 = 15	3 <i>N</i>
Add 9 = 24	3 <i>N</i> + 9
Divide by 3 = 8	<i>N</i> + 3
Multiply by 4 = 32	4 <i>N</i> + 12
Subtract 6 = 26	4 <i>N</i> + 6
Divide by 2 = 13	2 <i>N</i> + 3
Subtract 3 = 10	2 <i>N</i>

If the result is 10, then 2 *N* is 10 and *N*, or the number, is 5.

The series of operations should be varied from time to time in order that the pupil may not think that the teacher is following a fixed rule.

If the teacher will put down on paper the operations that she performs so that she may know afterwards what she has said, she will be able to point out any error that she or the pupil may make. Several pupils may be asked to think of numbers and the teacher may name the numbers, one after the other. Negative or fractional numbers are not to be feared and need not be avoided.

#### THE FOUR OPERATIONS.

An interesting method of reviewing the four operations of addition, subtraction, multiplication, and division is as follows:—

Two numbers, say 6 and 2, are written upon a blackboard. A pupil is called upon to recite, and is expected to make up and to solve a practical and also an abstract example illustrating each of the operations. Thus:

I have 6 cents; if I can earn 2 more I shall have 8 cents. 6 plus 2 are 8.

If from a pasture which contains 6 horses, 2 horses jump out, there will be left in the pasture only 4 horses. 6 less 2 are 4.

If one horse car ride costs 6 cents, then 2 rides will cost 2 times 6 or 12 cents. 2 multiplied by 6 are 12.

If I can get one apple for 2 cents, then for 6 cents I can get as many apples as there are 2's in 6, or 3 apples. 6 divided by 2 are 3.

#### ARITHMETICAL COMPLEMENTS.

683 and 317 are said to be arithmetical complements of each other; their sum is 1000 (1 followed by three zeros). To get the arithmetical complement of 683, then, we subtract it from 1000, and this is the same as subtracting each figure from 9 except the last one, which is subtracted from 10. Thus 6 from 9 is 3, 8 from 8 is 1, and 3 from 10 is 7; and our result is 317.

Similarly, the arithmetical complement

of 1764 is 8236 and the sum is 10,000  
of 2482 is 7518 and the sum is 10,000  
of 180 is 820 and the sum is 1,000  
of 99,982 is 18 and the sum is 100,000

If two numbers having three figures each are complementary, their sum is 1000; if they have four figures each their sum is 10,000, etc.

To add the following numbers:

- (1) 683
- (2) 694 (1) and (3) being complementary, also (2)
- (3) 317 and (4), we look at a glance that the sum of (1) and (3) (2) and (4) is 1000
- (4) 306 of (1) and (3) (2) and (4) and (5) is 1000
- (5) 842 and 1000 and 842, or 2842.

The teacher can give out numerous examples in addition like the above. She can thus tell at a glance whether the pupils, who are supposed not to know the key, get correct answers.

## TABLE TALK.

We would like to receive the names of all who are willing to undertake a study of the Mind. Send us your names, and we can advise you what you should do. We can help you. The course will be simple, but it will require some patient study, and will do you good, for there is nothing teachers so much need as a knowledge of the nature, parts, growth, and culture, of the human mind. Send us your names.

The following is too good to be lost. It has been going around the press, but we presume but few of our readers have seen it. It would be an excellent plan to examine the examiners before the pupils are put to tests to ascertain whether they are competent to conduct the examination. We hazard nothing in saying that, should such a course be pursued, examining committees would be as hard to find as strawberries in Greenland:

At an examination of a public school on Staten Island, the teacher, justly proud of his scholars, addressing the audience said :

"Ladies and gentlemen, to prove that the boys are not crammed for the occasion, I will direct one of them to open the arithmetic at random and read out the first problem. Then I shall invite a gentleman of the audience to work out the sum on the board, and commit intentional errors, which, you will observe, the boys will instantly detect. John Smith, open the book and read the first question.

The scholar obeyed, and read out: "Add fifteen-sixteenths and nine-elevenths."

The teacher turned to the audience and said : "Now, Supervisor ——, will you step up to the blackboard and work it out?"

The Supervisor hesitated, then said : "Certainly, and advanced a step or two, but paused and asked the teacher, "Is it fair to put the children to so difficult a problem?

"Oh, never fear," replied the teacher, "they will be equal to it."

"Very well," said the Supervisor, "go on."

The boy began the question : "Add fifteen-sixteenths"

"No, no," said the Supervisor; "I will not be a party to taxing the child's brains. I have conscientious scruples against it. This forcing system is ruining the rising generation!" and he gave back the chalk and left the room.

"Well, Judge Castleton, will you favor us?" asked the teacher, tendering the chalk.

"I would do so with pleasure," replied the Judge, "but I have a case coming on in my court in a minute or two," and he left.

"Assessor Middleton, we must fall back on you," said the teacher, smiling.

"Oh," said the Assessor, "I pass—I mean I decline in favor of Collector X."

"Well, that will do," replied the teacher. "Mr. Collector, will you favor us?"

"I would certainly—that is—of course," replied the Collector, "but—ahem! I think it should be left to commi—why, bless me! I'll never catch it. Good-bye! Some other time!" and he left.

"I know Justice Southfield will not refuse," said the teacher, and the Justice stepped promptly up to the blackboard amidst a round of applause from the audience. The scholar began to read the sum. "Add fifteen-sixteenths!"

A dozen hands went up as the Judge made the first figures.

"Well, what is it?" asked the teacher.

"He's got the denominator on the top of the line!"

"Very good, boys, very good; I see you are attentive!" said the Judge, as he rubbed out the figures, and turned red, and began again, but was interrupted by the boys calling out:

"Now he's got the numerator and denominator under the line!"

"Aha! you young rogues! You're sharp, I see," said the Judge jocosely, and again commenced.

"That ain't fractions at all! It's one thousand five hundred and sixteen!" was the cry that hailed the Judge's new combination of figures.

"Really, Mr. Teacher," ejaculated the Judge, "I must congratulate you on the wonderful proficiency of your scholars in algebra! I won't tire their patience any more."

"Oh, go on," said the teacher, and again the Judge wrote some figures in an off hand manner.

"That ain't no fraction! It's six thousand one-hundred and fifty-one!" yelled the boys.

"Mr. Teacher," said the judge, "it would be ungenerous on my part, and simply an unworthy suspicion as to your efficiency, to put these extraordinary bright children to additional tests; I would not, I could not—oh, excuse me. There's Brown! I have important business with him. Sheriff, I want to see you," and he left.

An ignoramus perched upon an examination stool, looking as wise as an owl, is about as perfect an embodiment of a humbug and a bugbear as the universe affords. We remember him in our academy course. He was attempting to know whether a class in commencing Greek knew anything. He looked daggers over his spectacles whenever the teacher pointed out a mistake. We youngsters were impressed. In fact, we almost thought that one of the old Greeks themselves had come to life, until a sharp-eyed boy, who could look around a corner, saw that the old fellow had his book *wrong side up*. He politely stepped to his side and *turned the book right side up*, saying, "Excuse me, sir; your book is upside down." No more questions were asked by him during that examination.

The scientists call it hypnotic or psychic force. Lulu Hurst had a monopoly of it recently, but now others seem to have caught the contagion. A young woman residing in Atlanta lays claim to the possession of the same wonderful powers. Of this last person it is related that she "need only touch a table with the end of a stick and it will rear on its hind legs like a frightened horse. A gentleman who was sitting comfortably in a chair he believed to be reliable in its behavior, was suddenly overturned when the lady touched it with her fingers." Thus far no one seems to be able to explain what it is, or how it can be obtained. The phenomena developed are somewhat as follows: Two or three persons take hold of the handle of an open umbrella, and hold it fast. The hypnotic person then touches it with her open palm, when, presto! the umbrella is turned inside out, or snatched away despite every effort. Meanwhile other persons find that no muscular contractions have taken place in her arms. Three strong men lift up a chair and hold it in the air; she places her hand upon it, and it sinks to the floor despite every effort. Others take hold of a long stick, the phenomenon touches the other end, and it rapidly revolves or pulls the three experimentalists about the room. This "force" seems to have a peculiar "penchant" for umbrellas and canes, so that she cannot carry the former article at all, the mystical something snatching it away and leaving her out in the wet.

Would not this be a capital thing to introduce into the school-room? How it would help government! A refractory pupil, all unconscious of the power residing in his teacher, is gently touched by her wand, when, presto! he is set flying all around the room in spite of himself and the laughing of his schoolmates. He would be careful the next time. It certainly will introduce a new era in school government and banish the rod. Solomon is left behind. It is no more the "rod of correction, but the "hypnotic and psychic" rod that will cure him. It would be a wonderfully good thing outside the school-room. A touch from a policeman's baton would send the unconscious sinner flying through the air straight to the nearest police-station.

Surely, we are living in an age of wonderful humbugs, and the greatest wonder of all is that people are so easily humbugged. We need the wisdom that comes from the spirit of calm and honest investigation to distinguish the false from the true. The old education taught men to believe what was told them, and the law came in to make them believe. The faggot was a wonderful educational incentive. But a new era has come. Those who have imbibed its spirit will not be driven like dumb cattle in hordes to follow any hereditary belief.

"Think for yourself!" is thundered from ten thousand school-rooms. The people are thinking for themselves, and it will take more than seventy dozen Lulu Hursts to convince thinking, educated men and women that she or anybody else can make a man dance around on the end of a stick, like a frightened horse, with only the touch of her wand. The touch must have somewhat of the vigorous emphasis of the old schoolmasters in order to have much efficacy.

Dr. F. B. CAMPBELL, of Brooklyn, has successfully performed a skin grafting operation. A brakeman who had been severely burned was the subject. 390 square inches of flesh were covered with small bits of skin in size from a pinhead to half a grain of wheat. In a few days they took root and grew together.

## LETTERS.

The Editor will reply to letters and questions that will be of general interest, but the following rules must be observed:

1. Write on one side of the paper.
2. Put matter relative to subscription on one piece of paper and that to go into this department on another.
3. Be pointed, clear and brief.
4. We can not take time to solve mathematical problems, but we will occasionally insert those of general interest for our readers to discuss.
5. Enclose stamp if an answer by mail is expected. Questions worth asking are worth putting in a letter; do not send them on postal cards.

Here is the solution of the Apple problem in the August 16th number of your JOURNAL. The boys sell 60 apples for 25 cents. They therefore sell 5 apples for 2½ cts. Now when the other boy shall sell his apples "at the same rate that they both did," viz.: five for 2½ cts., he will receive a like sum of money, and there will be no "missing cent." The author of this problem is, I presume, one of the profound advocates of the "New Education." A plan of teaching that seems to be adapted only to pupils of low capacity. The plan is well calculated to lessen the capacity of the pupils have.

Very possibly the author of this problem is the philosopher who asked, through your JOURNAL, for the origin of the slang, "Get there, Eli." Or he may be the man who wanted to know the present business of Gen. Grant. Or, possibly, he is the man who asked for "your idea of an idea." Yours for education, but not for sham,

M. C.

[Thanks for the solution, which is correct. Thanks, also, for your idea of the "New Education." In trying to make clear the principles of *education*, we must begin where the common teacher's knowledge of those principles ends; hence we are glad of any statements which define those limits. Give us your idea of the "New Education." Your way of killing sham questions strikes us as very forcible. Let us have more of it. You cannot hurt the "New Education."—Eds.]

(1) Notwithstanding the explanation given by J. Dunlap to the readers of the SCHOOL JOURNAL, concerning the proper understanding of the signs used in an equation, difficulty on that point has been met with. Mr. Robinson, in his Rudiments of Arithmetic, gives the following: to .02 times 32.5 add 5.7 times 16.04—12.0026. This he says equals 28 66318. Now, to get this result, five times the difference of the last two numbers must be added to the product of the first two? (2) Why do we have what are called equinoctial storms about the time the sun passes the equinoctial line?

INQUIRER.

[(2) The motion of the earth around the sun has nothing to do with these storms. During the Spring and Fall months cold currents from the north pass nearer the equatorial regions, and, meeting the warm waves, storms are caused by the coming together of cold and warm currents.—Eds.]

He does not sell at same price as the average price obtained by two boys on previous day, for this reason:

2 boys selling 2 for 1 ct. — ½ ct. per apple;

2 " " 3 " 1 ct. — ¼ ct. " Average price per apple (½ c. and ¾ c.) + 2 — ¾ c. So on first day the two boys received ¾ c. per apple on an average. 5 apples for 2 cts. — ¼ c. per apple, which is ¼ c. less in price than on previous day. Or in other demonstration:

60 apples at ¾ c.—25 cts.  
60 " " ¼ c.—24 cts.

dif. 1 ct.

Q.

(1) Where and how can I get a work on the "Delarte" System of Elocution? (2) How are cloth blackboards made? (3) Please give full instructions for making one, if it is possible for one to get the material to make it oneself?

[(1) Of E. S. Werner, Albany, N. Y. (2) Get heavy blue or green curtain cloth. It can be found at the stores. It is usually quite heavily sized, but it must not be smooth. It can be pasted on the wall, and will last for years, and make a first-class board. We have tried, and know whereof we write. If it is impossible to get this material at your stores, we will order it for you from N. Y., at wholesale prices.—Eds.]

Your paper is very valuable to me. I think it is fully in accord with our work at Normal Park. Please give us more like the editorial, "The Party of Protection. Here is a solution of the apple problem given in the JOURNAL of Aug. 16th: If two boys sell 30 apples each at the rates given, they receive fifteen and ten cents, respectively, or twenty-five cents in all. Let one boy start the next day with two baskets containing 30 apples each. Every time he sells, let him take three apples from one basket and two from the other. It will be seen that when he has made 10 sales, and received twenty cents, one basket will be empty and the other will contain ten apples. Yesterday these ten apples sold at two for one cent, bringing five cents. To-day they must sell at five for two cents; hence, they bring only four cents.

L. MAC.

Are the phrases "Evolution of Education," and "The New Education," synonymous? If so, with what information, relative to these subjects, can you furnish me, and at what rates?

M. M. H.

[The Evolution of Education relates to the general principles underlying the subject of education. The New Education relates to the practice of right principles. There is no work upon either of these subjects. The understanding of them comes with thorough study of education as set forth in educational books and periodicals.—Eds.]

Will you please answer through the columns of your JOURNAL this question. I have found it difficult to keep the little ones or beginners employed at their seats between recitation. They soon tire of the same thing. They are always anxious for some thing new. How can I keep on keep on hand a variety of entertaining things for them to do?

[*"Education by Doing," published by E. L. Kellogg & Co., will suggest many things for such occupation, and instructions for using them to good advantage.—Eds.*]

If I am not mistaken, nothing has appeared in the JOURNAL as to the proceedings of the music teachers at Madison. I am much interested in that branch. Prof. Seward hoped for good to result from the discussion of "Tonic Sol-fa." I know others are anxious to hear, etc.

V. A.

[All the reports we received from Madison were published. Should be glad to publish one of the Musical Convention.—Eds.]

Solution of apple problem.—One boy cannot sell 60 apples "at the same rate" that he and his companion sold at on the preceding day. And "5 apples for 2 cents" is not at the same rate. 5 apples for 2½ cents would be at the same rate. This may be seen by finding what a single apple was sold for on the first day. The reasoning must proceed from many to one before it can again go to many.

F. E. D.

I found at the beginning of my career as a teacher that what I needed to know was, how to teach. I began to look around for books and journals on teaching. I bought Pestalozzi's works, which helped me a great deal. I borrowed books and journals on the subject, but have never found anything so calculated to aid the struggling pedagogue as your SCHOOL JOURNAL. It is a perfect teachers' library in itself.

(1) Has each State in the Union a manual of its school laws? (2) Is it the duty of the State or the county superintendent to keep them?

[(1) Each State has a code of school laws, but each State does not publish a separate manual of them. (2) The State Supt.—Eds.]

How can I make Fractions interesting to my class?  
A. L. C.

[For some suggestions, see lesson in May 17th JOURNAL, page 310. We invite teachers who have found good methods of teaching this subject to send them to us. We have one article on this subject on hand, and which will appear as soon as we can find space.—Eds.]

I herewith enclose a solution to a problem given by "Subscriber," in the last number of the INSTITUTE. The solution is the independent work of a girl thirteen years old.

R. J. T.

[The solution is excellent, but rather too long for publication. A correct solution has been published.—Ed.]

Please solve the following: (1) In how many minutes after 4 o'clock will the hour and minute hands be 5 minutes apart? (2) In how many minutes after 4 o'clock will the hour and minute hands be 5 minute spaces apart?

J. W. E.

(1) What is the best work on teaching oral geography to primary pupils? (2) Where and at what price can I get a Numeral Frame?

A SUBSCRIBER.

[See page 104 of Aug. 30th JOURNAL.—Eds.]

I consider the INSTITUTE a mine of wealth. E. A. W.  
The JOURNAL has been the means of raising my salary 25 per cent. for next year.

C. P.

By all means send me the JOURNAL another year. I cannot keep house (school) without it.

L. H. M.

The JOURNAL has done much for the schools of Mifflin Co., and I trust that the teachers will appreciate its worth.

W. C. M.

Paper received and read with interest. Yours is the best journal of education I have seen.

E. P.

Hillsboro, Texas.

I just enjoyed the special JOURNAL of June 26. I always revel in advertisements of books I cannot buy.

J. H. L.

I have obtained the principalship of one of the leading city schools. I lay the blame of my success mostly to the JOURNAL. Without its help, I do not think I should be in my present position.

D.

I have been taking your JOURNAL for eight months, and could not do without it. It has been a great help to me in teaching.

K. W.

I owe many thanks to the INSTITUTE for assisting me in teaching. I can say of a certainty that the INSTITUTE is by far the best monthly educational paper I ever read. I wouldn't be without it for twice its cost.

J. L. D.

I propose never to rest satisfied, nor relax my efforts until the SCHOOL JOURNAL or the INSTITUTE is placed in the hands of every teacher in Pope county. These papers are practical helps inside the school-room.

H. L. RAYBURN.

The first number of your INSTITUTE has been received and gives general satisfaction. I receive the JOURNAL, and am much pleased with the practical common sense way in which educational subjects are discussed. Success to all such undertakings is the wish of your educational friends over here.

J. N. MICHELL,

P. S. Inspector.

## EDUCATIONAL NOTES.

### TO SUPERINTENDENTS, INSTITUTE CONDUCTORS AND TEACHERS.

Our readers would like to know what you are doing. Will you not send us the following items: Brief outlines of your methods of teaching: Interesting personal items: Suggestions to other workers. Only by active co-operation can advancement be made. Thousands are asking for information and we shall be glad to be the medium of communication between you and them.

Editor.

The corrected list of officers of the National Educational Association for the ensuing year is as follows: president, F. Louis Soldan, of St. Louis; first vice-president, Thomas W. Bicknell, of Boston; secretary, W. E. Sheldon, of Boston; treasurer, N. A. Calkins, of New York.

**CONNECTICUT.**—Dr. Northrop is on one of his many educational trips. He lectures first at Cleveland, Omaha, and other places in Nebraska; Winona, Mandan, Minneapolis, Minn., and then goes to Colorado for several addresses.

**CALIFORNIA.**—Institute, Sept. 8th: Buementura, Ventura Co. — The Oak Mound School, Prof. C. M. Walker, Principal, opened its fall term July 29th.—The Folsom School Trustees have elected J. E. Blanchard as Principal, and Miss Edith C. Smith as Assistant of the Granite School.—Prof. Adams, of the Sacramento High School and the Board of Examination, has resigned both of these positions.—Prof. George F. Mack, for many years a teacher in Nevada and El Dorado Counties, has been re-elected principal of the lone public schools.

**FLORIDA.**—The Normal institute at Quincy commenced August 25th and ends Sept. 20th. Prof. Felkel is the instructor, assisted by other able educators. He is probably the best qualified normal teacher in Florida, and his experience in the work is much greater than that of any other instructor in the State.

**IOWA.**—Institutes September 1.—Estherville, Emmett Co. Conductor, E. H. Ballard. Alzona, Kossuth Co. Conductor, E. R. Eldridge. Mason City, Cerro Gordo Co.: Conductor, L. L. Klinefelter. Lake Mills, Winnebago Co.: Conductor, G. P. Eldridge. Sept. 8.—Clarion, Wright Co. Sept. 15.—Rolle, Pocahontas Co.: Conductor, J. W. McClellan.—Miss Lucy Cameron has been engaged to teach the Third ward primary school of Waverly.—Miss Alice Hurley, of the Eldora High school last year, has been engaged in the Hampton schools.—Prof. Hart has been elected principal of the Grinnell schools at a salary of \$1,200 per annum.—The Sumner schools will commence Sept. 1st. The teachers are: S. F. Feister, principal; Alice Caldwell, intermediate; Mary A. Hatch, primary.—Miss Lelia Hough succeeds Miss Emma Kerr in the Newton schools.—Miss Mabel Jenkins has engaged to teach the primary department of the Greeley school.—Miss Abbie Cooley goes to Dell Rapids, Dakota, to take charge of the primary department.—W. H. Gregg, of Pennsylvania, has been engaged as principal of the Dyersville schools.—J. D. Danskin will teach in Story county the coming winter.—Miss Cora A. Noble, of Strawberry Point, teaches in the Delhi school, again.—Miss Tressa Gateley and Nettie M. Chapel will return to Ida county to teach.—Miss Alice Waite, teacher in the primary department, at Greeley, last year, will teach in Ida county the coming year.

**INDIANA.**—Institutes. Sept. 1st: Indianapolis; Bloomfield, Green Co.; Leavenworth, Crawford Co.; Warsaw, Kosciusko Co.; Clinton, Frankfort Co.; Bonnerville, Warrick Co.; Winnemack, Paluski Co.; La Fayette, Tippecanoe Co.—Sept. 8th, Fowler, Benton Co.; Shoals, Martin Co.; Covington, Fountain Co. Sept. 22nd, Knox, Starke Co.—Sept. 29th, Wells, Bluffton Co.—The Putnam Co. Teachers' Institute opened Aug. 11th. Prof. E. E. Smith, of La Fayette, Prof. M. Seiler, of Terre Haute, Miss A. Kate Huron, of Danville, and others conducted the exercises. Each one in attendance was taxed fifty cents.—The Pleasant Lake Graded School, H. H. Keeh principal, opens Sept. 9 1884. One feature of the school is a teachers' class, in which are discussed, "Theory and Practice," "Methods of Teaching," and "School Management."—The Park County Teachers' Institute closed an interesting and profitable week's session. The enrollment was 160. The instruction was ably conducted by Lin. H. Hadley, B. A. Ogden, Mary Howard, John Engle, and Jesse Lewis, with some simple and easy experiments in natural philosophy and chemistry. Hon. B. C. Hobbs looked in on Thursday, and made fitting remarks. A new feature was introduced by the county superintendent, W. H. Elson, in the way of daily printed outlines of the work.

A. E. Davison is principal of the high school at Rochester—Miss Munson has been re-elected superintendent schools at Mitchell.—Prof. Lugenbeel, of the normal school at Mitchell, has established a branch school at Milan, Tennessee.—A. Whiteleather, of Plymouth, has been elected principal of schools at Bourbon.—Miss Edna D. Baker, associate instructor in the Purdue University Academy, was married last month to W. F. M. Gross, Prof. of Practical Mechanics. She has resigned, and her place has been filled by Miss Flora M. Weed, of Ft. Wayne.—The La Grange County Normal, E. G. Machan in charge is doing normal work, not academical alone. There is a class of over sixty in Mental Science (Brooke), a successful class in Methods, besides the common branches.—Prof. Horace S. Tarbell, late superintendent of the Indianapolis schools, teacher in New England academies for seven years, principal of the ward schools in Detroit for five years, superintendent of the East Saginaw schools, and State superintendent of Michigan, now goes as superintendent to Providence, R. I., at a salary of \$8,000.—Miss Anderson, of Union City, goes to Portland this year, —G. H. Weller is elected superintendent of schools at

Kentland.—C. A. Segur, formerly of Pleasant Lake, is the new superintendent at Hamilton.—The Indianapolis Seminary, conducted by Prof. J. B. Roberts, opens its eighth year Sept. 10th.—Prof. White has resigned the superintendence of the Portland schools.—Miss Mary E. Nicholson has been appointed principal of the Indianapolis Training School, at a salary of \$1,500.—Prof. Hunke, of Wabash, has been elected Professor of Reading and Elocution in the State Normal School, to fill the vacancy caused by the resignation of Prof. Carhart.—Prof. L. S. Thompson, of Purdue University, delivered a lecture at Monteagle Tenn., Aug. 14th, on "Is it Reasonable to Believe in the Christian Religion?" which was complimented very highly by the Daily American.—Prof. A. N. Munden, who has been principal of the schools of Lexington, Scott county, for the past three years, has resigned. W. D. Chambers, a talented young teacher of the county, and a student of the State Normal, has been secured to succeed him.

**ILLINOIS.**—The Cook Co. Normal opens Sept. 1st. The prospects are remarkably encouraging.—The Staunton School Board decided to elect a gentleman as first assistant. J. S. Thompson was elected, and he resigned in favor of John O. Kennedy, who last year had charge of the New Douglas school. The same board elected Charles E. Reeve, of Taylorville, G. E. Ayers, for two years in charge of the above school, goes to the Litchfield High School.—Those who attended the Cook County Institute held at Normal Park from July 7th to 11th, were enthusiastic over its success. A. F. Nightingale, Lake View High School; Mrs. Ella Young, Skinner School, Chicago; H. L. Boltwood, Evanston High School; O. T. Bright, Douglas School, Chicago; Mrs. F. W. Parker, Boston School of Oratory; L. Lewis, Superintendent, Hyde Park; Helen R. Montori, Cook County Normal School; Col. F. W. Parker, Cook County Normal School, and others equally well known, were employed in active work. About 300 teachers were present.—Profs. Hayes, Parson, Blanchard, Gibbs and Lucas retain their principalships, and County Superintendent Talbot is working for more such men.—Sept. 1st; Institutes: Cairo, Allevander Co.—One of the liveliest institutes ever held in the state, recently closed its sessions at Rockford. Mr. Winnie, the Co. Supt. is a live man in the right place, and is giving the "new education" a wonderful impetus in his county.

Miss Annie Maxwell has a position in the Sycamore school.—F. E. Hyde leaves Cambridge for Newton, Iowa.—H. W. Tippett takes charge of the Westfield schools next year.—T. C. Clendennon, of Arcola, received a very flattering offer from Portland, Oregon, but his friends at Arcola would not hear of his leaving them, so he remains.—John W. Gibson declined a re-appointment to the principalship of the Normal public schools, although earnestly requested to stay at an advanced salary, and succeeds Mr. J. H. Wilson in the Decatur High School.—Chas. E. Reeve will have charge of the Staunton schools next year.—David W. Reid, principal of the East Side schools in Champaign, takes charge of the Normal public schools next year.—C. I. Gruy, for several years at the head of the Cambridge schools, and afterwards of the Delevan schools, has been elected to the principalship of the Sandwich schools.—P. R. Walker, for many years principal of the Rochelle schools, has been elected to the superintendency of the Rockford schools.—Prof. Thomas Charles, for five years principal of the Litchfield schools, was again re-elected, but refused to accept on account of his health. He goes as principal to Silver City, New Mexico. Prof. J. C. Bowby, of Vandalia, succeeds him at Litchfield.—Mr. John Hall is again elected principal of the Shipman schools.—Miss M. E. Rider has been elected for the second year principal of the Nilwood school.—Mr. B. F. Stocks has been employed to take charge of the schools at Virden, for the second year.—Mr. and Mrs. Harrison Sawyer were re-engaged for the fourth time to take charge of the Dorchester school.—J. S. Campbell moves from Chesterfield to Medora. G. A. Scott has been elected to conduct the school at Chesterfield.—Mr. M. W. Evans, who has given entire satisfaction at Girard as principal, has been re-engaged for seven months at \$90.—Scottville school will be taught this year by W. W. Hewitt, who has been in charge for several years. He will be assisted by S. W. Goble.—Mr. Geo. Harrington has been elected for the sixth time, principal of the Carlinville schools. He has given universal satisfaction.—Edward Weirick, of the Lena schools, has accepted the principalship of the Nora schools. M. O. Nararome, of the Lena High School, has accepted the principalship of the Winnebago schools for the coming year.—O. P. Postwick, principal of the Lena schools, has been elected to the position of superintendent of the Galena schools, to succeed Prof. R. L. Barton.—Charles Fordyce, graduate of the State Normal, late principal of McLean schools, has been elected to the principalship of the Lena schools.—Ellis Goddard, of Burlington Junction, a successful and popular teacher, takes charge of the public schools of that place.—Miss Carrie Gifford, graduate of the State Normal in class '84, has been tendered the grammar department in the Lena schools.—A. F. Ballinger is doing efficient work at the head of the Ridott school, and has been retained for the fourth year.—J. Potter will remain at the head of Davis schools.—F. K. Fisher has been retained principal of Dakota schools.—C. W. Franks, principal, and Sarah Leggett in charge of the primary department, will remain at the Cedarville schools.—Jere Lenord has been elected principal of the graded school of Rock City.—Douglas Richbark will teach at Haze Dell.—P. T. Nichols is elected principal of the Sullivan schools.—Wm. Sondericker is the new principal of Bement schools.—P. K. McMinn has been elected principal of Champaign school.—Hortense Davies has been retained in the Eastern district. She has taught the school continuously since the district was formed.

—Robert L. Fleming will teach a five months' term at Elmwood.—Oscar N. East has been engaged to teach a five months' winter term at Pleasant View.—Dr. John Wesley Porter will teach at West Cisco, and his wife at East Cisco.—W. H. Skinner went to Nebraska to recuperate. He has accepted the principalship of the David City schools; salary, one thousand dollars.—Frank V. Dilatish goes from the Monticello grammar school to its principalship.—Mrs. Jess, Mrs. Bradley, and Mrs. Reed were elected school directors in Klinger district at a special election in June, by a handsome majority.—W. E. Garvey, Mrs. L. S. Gales, Mrs. J. C. McIntosh, Hortense Conaway, Annie Kilpatrick and Jane Conaway are to teach in the Monticello schools.

**KENTUCKY.**—M. Jos. Treadway sends notice of the Owlsley County Teachers Institute, at Green Hill, Aug. 25 to 30.

**KANSAS.**—The Mitchell county teachers passed resolutions expressing their appreciation of and gratitude for the services of Profs. P. J. Williams, E. S. Parmenter, and J. W. N. Whitecotton at the recent institute, and the desire that they be secured for the next institute. Thanks were also extended to Co. Supt. Wilcox, for earnest assistance, and the desire expressed for his re-election. A county teachers' association was organized. Mr. M. J. Wilcox was re-elected president, C. E. Harvey secretary and treasurer; members of the executive committee, C. W. Wallis, J. M. Cox, and Misses W. A. Webster, Lottie Pierson, and Retta Long. The next meeting to be at Beloit, Sept. 20th.

**MICHIGAN.**—The Fall term of Kalamazoo College begins Sept. 10, 1884. Members of the Faculty are: Rev. Kendall Brooks, D. D., president and professor of moral and intellectual philosophy; Rev. Theodore Nelson, Ph. M., acting president; Rev. Samuel Brooks, D. D., professor of the Latin language and literature; Jabez Montgomery, Ph. D., professor of the natural sciences; Alexander Hadlock, Ph. M., professor of mathematics; Frank D. Haskel, A. M., professor of the Greek language and literature; Miss Marian A. Chase, instructor in history; Miss Lena A. Beerman, instructor in Latin; Miss Mary A. Sawtelle, instructor in French.

**MINNESOTA.**—Institutes, Sept. 1st: Ada, Norman Co.; Northfield, Rice Co.; Monticello, Wright Co.—Sept. 8th: Redwood Falls, Redwood Co.; Litchfield, Meeker Co.; Benson, Swift Co.—Sept. 15th: Lac-qui Parle, same county; Jordan, Scott Co.; Montevideo, Chippewa Co.—Sept. 22nd: Duluth, St. Louis Co.; Long Prairie, Todd Co.; Caledonia, Houston Co.—Sept. 29th: Hawley, Clay Co.; Currie, Murray Co.; Herman, Grant Co.—V. D. Eddy writes that the Institute at Rush City was well attended, and good thorough work done. Prof. Kirk, of the Winona Normal is very good professionally, and having had considerable experience in rural schools, is able to work to good advantage. Prof. Pendegast, Asst. State Supt. assisted in the work. He is a great enthusiast, and teachers are always glad to see him step to the front.—Monsignor Capel has decided to remain in America during the summer. He is at present the guest of Bishop Ireland, in St. Paul, Minn.

**NEBRASKA.**—Institutes, Sept. 1st: St. Paul, Howard Co.; Pierce, Pierce Co.—W. T. Howard, Supt. of Coalfax County, sends notes of the opening of the Co. Institute, which began at Scyler, July 28th. W. T. Howard, M. M. Halleck, and H. N. Halleck, were the instructors. A committee was appointed to form a course of study for Coalfax County.

**N. Y. STATE.**—Clinton Co. Teachers' Association met at West Chazy, Aug. 28-29.—Professor Brainard Kellogg, of Brooklyn Collegiate Inst., and Hon. John I. Gilbert, of Malone, lectured; and Miss Nellie Lansin, of Plattsburgh, and Miss Emma Goodspeed, of Ellenburgh, gave select readings.—Mr. Martin W. Smith, Commissioner of Oneida county, died at his residence, Rome, Aug. 20, of heart disease.—Institutes Sept. 1: Angelina, Allegany Co.; Avoca, Steuben Co.; Liberty, Sullivan Co.—Sept. 8: Kingston, Ulster Co.; Cortland, Cortland Co.—Sept. 15: Chittenango, Louisville, Louis Co.—Sept. 22: Delhi, Delaware Co.; Tonawanda, Erie Co.; Canandaigua, Ontario Co.—Sept. 29: Moravia, Cayuga Co.; Herkimer, Herkimer Co.; Genesee, Livingston Co.; Ithica, Tompkins Co.—There was recently a very exciting school election at Gloversville. Mrs. E. R. Churchill, Mrs. C. J. Mills, and Edward Ward were elected to the Board of Education. The board is now composed of seven men and two women.—Nazareth Academy, Rochester, enters upon its twelfth year Sept. 1, Rt. Rev. B. J. McQuaid, in charge. Ten proficient teachers are actively employed here, and their work is one of devoted interest, modest merit, and superior excellence.—Hon. Neil Gilmour, ex-supt. of public instruction, has been appointed Receiver of Public Moneys, in Dakota.

**NORTH CAROLINA.**—Mr. J. R. Wharton, Supt. of Guilford county, has just closed a highly successful county Institute. Lectures were delivered by Profs. Woody, of New Garden, Oscar Holt, H. L. Smith, Martin Holt, and Judge R. P. Dick.—At the Chapel Hill Normal School a "Teachers' reading circle" was organized through the efforts of W. H. Page, editor of the *State Chronicle*. A large number of teachers joined the circle, which was named the "Chronicle" in compliment to its originator. The first year's course comprises the following publications: Nordhoff's Politics for Young Americans, McCarthy's History of Our Own Times, 2 vols., Smiles' Self-Help, Lamb's Tales from Shakespeare's, 2 vols., Buckley's Fairy Land of Science, Ruskin's Fronde Agrestes, Shairp's Life of Robert Burns, Thackeray's Henry Esmond, Hughes' Manliness of Christ.—The University Normal School at Chapel Hill, under the wise and excellent management of Prof.

J. L. Tomlinson, is doing most admirable work in every department.—Prof. Sylvester Hassell, the superintendent at Wilson, has done good work. Two hundred and ten pupils were enrolled, representing 23 counties.—Capt. John E. Dugger's work in the Franklin Normal is seen in the large attendance and intense enthusiasm.—The citizens of Elizabeth City have been actively assisting the superintendent of the Normal School Prof. S. L. Sheep, in working up a good attendance, and have succeeded in bringing a greater number into the school than ever before. Special success is attending the work of Prof. Houck and Mrs. McHenry.—Prof. M. C. S. Noble, is superintendent at the Newton Normal. More than a hundred teachers are in attendance. The "model classes" taught by Misses Cook and Yarborough are of special interest.

All the teachers of the Wilmington graded schools have been re-elected.—Prof. M. C. S. Noble has been re-elected superintendent of the Wilmington schools.

The University of North Carolina has conferred the degree of D. D. on Rev. N. Colin Hughes, of Chocowinity.—Rev. M. L. Wood, president of Trinity College, has had the degree of D. D. conferred on him by both the University and Rutherford College.—Rev. M. L. Little, principal of Gaston High School, is erecting a large three-story building for his school.—Prof. Eugene G. Branson, late of Murfreesboro, Tenn., has been elected superintendent of the Wilson graded school.—Prof. T. P. Wynn has been re-elected principal of Pollocksville Academy.—Mrs. Preyo and daughter, of Petersburg, propose to open a female school at Garysburg.—The Rowan County Teachers' Association has elected the following officers for the next six months: President, Prof. J. M. Weatherly; 1st vice-pres., Mr. C. M. Brown; 2d, Miss Cappie Moose; 3d Mr. C. H. Swink; secretary and treasurer, H. J. Overman; critic, Mrs. S. R. Arey.

**OHIO.**—L. H. Murlin, reports that the Putnam Co. Teachers held most profitable and interesting Institute of two weeks, from Aug. 4-18, at the county seat, Ottawa. The instructors were Profs. L. M. Sniff and F. E. Knoff, of Columbus Grove, and Prof. S. F. Ford, of Ottawa. It was conceded by all to be the largest and most enthusiastic Institute ever held in the county. The enrollment was 180. The instructors did their work ably and well. Three very important steps were taken. The first was the adoption of very strong temperance resolution, calling upon the examiners to refuse certificates to those who are in the habit of visiting saloons and billiard halls. The second was the adoption of a "Course of Study for the Sub-district Schools of Putnam County." It is an experiment and the teachers are urged to try it this year and report at next Institute. The third was the appointing Vice presidents from each township in the county, whose duty shall be to see that a Teachers Institute is organized in his township by a date not later than October 30, to meet at least once a month.—Hon. Henry Houck sends word that at Uniontown, August 25th, Hon. Leroy D. Brown, Ohio School Commissioner, Hon. Henry Houck, of Pennsylvania, Supt. B. A. Hindale, of Cleveland, and Supt. E. A. Jones of Massillon, will be present.—The fall term of Clermont Academy begins Sept. 29th. The faculty consists of James K. Parker, who is Prof. of Latin, Mathematics, Rhetoric and Logic; Rev. E. A. Read, A. M., Prof. of Greek and Natural Science; Mrs. S. P. B. Parker, Teacher of Rudiments, History and Metaphysics; Mr. Eva P. Read, Teacher of Vocal and Instrumental Music; Miss Lottie M. Penn, Teacher of Drawing and Painting. There are six departments: Common School, Academic and Normal, College Preparatory, Music, Drawing and Painting, German Language.

**PENNSYLVANIA.**—The Fu Bois School Board has chosen Ex-Supt. J. G. Anderson, of Clarion county, principal of the schools. Prof. B. C. Youngman, principal of the Clearfield schools, has had a call to a position in the Blairstown Academy, N. J., but prefers to remain.

The Bloomfield Academy was thronged during the Spring term, and an interesting term was also taught at Millerstown by Prof. S. B. Fahnestock.

The Potter Co. Institute will be held at Coudersport, Sept. 29.

J. L. Potteiger has been elected principal of the Weatherby schools. The Hazle Township schools opened August 18.—Dr. Reilly, recently principal of Palatine College, has been elected principal of the Allentown Female Seminary.—Prof. T. M. Balliett, ex-Supt. of Carbon county, and now a professor in the Cook County Normal School, will be instructor at the Luzerne, Schuykill and Columbia county institutes.

Huntington Mills' English, classical and normal school opened Aug. 4 under the direction of Prof. H. D. Walker.—The Pennsylvania State Teachers' Association holds its annual session next year at Harrisburg.—The average salaries paid gentlemen teachers in the First district of the City of Wilkes Barre is \$78.75. The average salary paid lady teachers in the same district is \$47.50 per month.—Banks township, Carbon county, pays gentlemen teachers \$60 per month, and lady teachers \$35.—Wilkes Barre, Pittston, Nanticoke, Hazleton, and Hazle township, are among the districts that sustain semi-monthly teachers' institutes during the school year.—W. H. Hibbs has been re-elected principal of the West Pittston High school, at a salary of \$1,100.—Troy Graded and High school opened August 18th, under the direction of Professor Daniel Fleisher. Miss Minnie Grohe has charge of the Grammar School department; Miss Beckwith has the Intermediate department; Miss Emma Adams, the Primary (A) department; Miss Libbie Shannon, Primary (B).

**S. CAROLINA.**—Mr. Wm. S. Morrison, of Wellford High School has been elected Superintendent of schools

at Spartanburg. At a meeting of the Teachers Association a resolution was passed appointing D. B. Johnson, B. R. Turnipseed, and L. B. Haynes a committee to secure the issue of a monthly educational paper in South Carolina, to be published in Columbia. The association elected the following officers: President, B. D. Johnson; Vice-Presidents, V. C. Dibble, J. F. Brown, Dr. G. W. Holland, A. S. Townes, R. Means Davis, A. McP. Hamby, W. H. Witherow. Secretary and Treasurer, W. S. Morrison; Executive Committee, B. D. Johnson, L. B. Haynes, B. R. Turnipseed, H. P. Archer, A. R. Banks.—P. V. Bomas says: The S. C. Normal Institute closed its fifth annual session Aug. 14th. Addresses were delivered by Edward S. Jaynes, principal, Cal. Coward, State Superintendent of Education, and Dr. Jas. H. Carlisle President of Wofford College where the sessions of the Institute were held. This Institute is regarded as a success. There were over 200 regularly enrolled attendants, about 150 of whom were bona fide teachers. Only a few tried the examinations held at the close of the session, and of these only two passed, Messrs. M. L. Carlisle, and E. J. Chandler.

**TENNESSEE.**—W. J. Davis, of Indian Territory, says: Prof. Frye, of Col. Parker's Normal, showed himself a master workman at Monteagle, Tenn. His work in geography is most excellent, so said nearly all the teachers from the twenty-three States and Territories at the summer schools.—Mr. T. W. Noland has begun teaching at McKenzie.—Prof. P. H. Manning will teach in the Normal Institute at Lebanon this summer.—Mr. Marcus M. Ross has been elected to a position in the public schools of Nashville.—W. S. Graham will teach in Montgomery Bell Academy next year.

**TEXAS.**—W. H. Clifton says: "For the past few years our legislature has provided for Normal Institutes in each Senatorial district, to be held for a term of four weeks in July. Through this medium an interest is being awakened. The attendance at the 'summer normals' this summer was twice as large as that of last summer. Cities are all adopting the 'new methods,' and many towns and even country schools are admitting the possibility of improving upon our method of teaching children. In addition to the summer Normal Institutes we have a State Normal School for the education of teachers, one for white and one for colored teachers, in which books, tuition, and board are provided by the State. In most rural districts the negroes are taking more interest, at present, in schools than the whites are. We need a free circulation of the *New York School Journal* among our teachers. Texas has a public school fund superior to that of any other State in the American Union. It seems that an educational boom is possibly dawning upon Texas! We think that notwithstanding the hitherto 'literary darkness' of Texas, she now bids fair to soon be the educational centre."

R. Stanbery has been elected superintendent of the Brenham public schools. A strong effort was made to secure him at Dallas. The teachers attending the Dallas Normal were enthusiastic in their praise of Mr. Stanbery, who took a prominent part in the conduct of the normal.—Jay E. McGuire has accepted the superintendency of the Palestine schools, at an advance of \$300 on the salary paid him last year at Brenham.—Major W. A. Banks has been elected superintendent of the Bryan schools, vice Hallyburton, resigned.—J. C. Clark has resigned the superintendency of the Navasota schools, and accepted the superintendency at Rockdale. R. G. Hallyburton succeeds him at Navasota.—Wm. A. Bales, of Dallas, a native of New York State, has been elected superintendent of the Dallas public schools.—I. H. Bryant has been re-elected principal of the Austin High School; J. E. Smith, assistant principal; Mrs. Smith Ragsdale, assistant principal in charge of female department.—Prof. C. A. Bryant, formerly of Salado College, has been re-elected superintendent of the Calvert public schools, and J. T. Hand, of the Corsicana schools.—Mrs. H. M. Kirby, of Austin, has been elected assistant teacher in the State University, and has accepted the position. Mrs. Kirby is well known all over the State as the accomplished principal of Alta Vista Female Institute of Austin.—Supt. Hogg, of the Fort Worth public schools, has had his salary raised from \$1,200 to \$2,000, and was unanimously re-elected for the ensuing year.

**VERMONT.**—State Superintendent Dart is to hold educational meetings in Franklin and Grand Isle counties early in September. He has done excellent work in various parts of the State, and proved a most valuable officer.

**WISCONSIN.**—Institutes, Sept. 1: Milton, Rock Co., Conductor, H. D. Maxson; Plymouth, Sheboygan Co., Conductors, I. D. Harvey, W. J. Brier; Reedsburg, Sauk Co., Conductor, A. J. Hutton; Chilton, Calumet Co., Conductor, E. McLoughlin; Viroqua, Vernon Co., Conductors, C. J. Smith, G. E. Cabins; Black River Falls, Jackson Co., Conductors, A. F. North, Miss M. Conklin; Alma, Buffalo Co., Conductor, W. E. Barker; Menomonie, Dunn Co., Conductors, J. B. Thayer, Etta Carle.—Sept. 8th: Montello, Marquette Co., Conductors, H. D. Maxson, D. W. McNamara; Bloomer, Chippewa Co., Conductor, W. C. Sawyer.—Sept. 15th: Shawano, Shawano Co., Conductors, A. F. North, Miss M. Conklin; Princeton, Green Lake Co., Conductor, W. C. Sawyer; Rio, Columbia Co., Conductors, A. J. Hutton, J. T. Lunn; Osceola Mills, Polk Co., Conductor, J. B. Thayer.—Sept. 29th: Lyndon, Juneau Co., Conductor, A. S. Hutton.—The Milwaukee Industrial School for girls made at Madison a fine exhibit of schoolroom work, examination papers in common English studies, map drawing and kindergarten work, also specimens of industrial work, sewing, knitting, crocheting, artistic needlework, etching, etc.

## EDUCATIONAL MISCELLANY.

## THE PLANETS IN SEPTEMBER.

Saturn is morning star on the 16th; at ten o'clock in the morning he is in quadrature with the sun on his western side, after which he rises half after 11 o'clock in the evening, and, at the close of the month at half past 9 o'clock. During this year and the succeeding year the finest telescopic views of Saturn and his rings may be obtained in northern latitudes, for in this time he passes his perihelion, reaches his greatest northern declination, and his rings are open to their widest extent; these events, all occurring before the year 1885 closes. The rings, two in number, are separated by an opening, while the inner one is joined at its inner circumference to a third or dusky ring, considered partially transparent. There is also a line that looks like a division in the outer ring. The Messrs. Henry, of the Paris Observatory, who have recently made observations on the mysterious rings under unexceptionably favorable atmospheric conditions, make the announcement that, outside of the known rings, there exists a small bright one on the outer border of the outer one, the width being nearly equal to the division in the ring. If this is true, the opinion will be confirmed that important changes are taking place in the rings, especially in the outer one. There is a curious analogy between the solar system and the Saturnian system. The sun has eight planets and a ring of asteroids revolving around him. Saturn in like manner is surrounded by eight moons and a ring of minute bodies corresponding to the asteroids. Some time in the future the reason for the correspondence may be discovered.

Venus is morning star, and continues to travel westward until the 21st, when she reaches her greatest western elongation, reverses her course, and approaches the sun. She rises on the 1st about 2 o'clock in the morning; on the 30th, about a quarter after 2 o'clock.

Jupiter is morning star, far enough from the sun to be easily visible, rising now an hour and a half before it, and two hours after Venus. On the 19th Jupiter is only an hour behind Venus, and, at the end of the month, only fifteen minutes. Observers who command the eastern horizon, and will take the trouble to rouse from their slumbers in the small hours of the morning, will behold one of the finest exhibitions our brother planets can get up. Jupiter rises on the 1st about 4 o'clock in the morning; on the 30th about half past 2 o'clock.

Uranus is evening star until the 20th, when he becomes morning star. He sets on the 1st about a quarter after 7 o'clock in the evening; on the 30th he rises about a quarter after 5 o'clock in the morning.

Mercury is evening star until the 19th, when he joins the ranks of the morning stars: sets on the 1st soon after 7 o'clock in the evening; on the 30th rises about half past 4 in the morning.

Neptune is morning star, rises on the 1st about half past 9 o'clock in the evening; on the 30th at a quarter before 8 o'clock.

Mars is the sole evening star through the month. He sets on the 1st soon after 8 o'clock in the evening; on the 30th at 7 o'clock.

The September moon fulls on the 5th at four minutes before 6 o'clock in the morning, standard time. On the 10th the moon is in conjunction with Neptune; on the 12th, with Saturn; on the 15th, with Venus; on the 18th, with Jupiter; on the 19th, with Mercury and Uranus; and on the 22nd, with Mars.

EACH room should be supplied with 2,000 feet of fresh air per hour for every person it contains. Our ingenuity ought to find some way of doing this advantageously and pleasantly. A moiety of the care we devote to delicate articles of food, drink, and dress would abundantly meet this prime necessity of our bodies. Open the windows a little at the top and the bottom. Put on plenty of clothing to keep warm by day and by night, and then let the inspiring oxygen come in as freely as God has given it. Pure air is the cheapest necessity and luxury of life. Let it not be the rarest.—STEELE'S *Hygienic Physiology*.

## FOR THE SCHOLARS.

## THREE STORIES.—A LESSON.

TEACHER.—When a baby has something in his little, fat hand, he puts it right to his mouth. Why do you not put everything you have into your mouth?

*Write or print the word POISON on the board.*

## IT SMELLED GOOD.

A gentleman sent his girl to dust his room, while he was walking out. All round the room were shelves with bottles on them filled with different things, for he was a chemist. The girl, as she lifted the bottles and dusted and set them back, smelled a strong, pleasant smell like almonds. She saw neither raisins nor almonds. The almond smell came from a bottle labelled Prussian Acid. She thought she would just try how it tasted; she opened it and raised it to her lips; she fell down senseless. There she lay with the bottle beside her. When the gentleman came home he found her dead.

*Why did she die? What wrong thing did she do?*

## IT LOOKED BRIGHT.

A gentleman and lady had a beautiful boy, their only son. They were very proud of him, he was so large and rosy. He was just old enough to creep about, so they kept a nurse to watch him and do some sewing. All at once the merry boy grew cross and fretful. He cried very much; he did not want his food; he grew weak and pale; he was restless and in pain. The doctors did not know what was the matter. At last he died; and then they looked to see. They found in his stomach a small brass thimble without a top, a thimble the nurse had lost many months before. The boy had swallowed it.

*What caused the death of the little boy? Why? What other things would kill us if they should be swallowed? What would it do to us if we should swallow all the bright looking things we see? Why was the thimble poison? What is a poison?*

## PIGS DRUNK.

A man rolled a barrel out of his door and emptied something out into the road. It looked like a fine heap of cherries. An old mother pig with her little ones came running up and began eating them. Soon one little pig began to stagger and tumble about as if his legs were weak. He stumbled over the others as if he was going blind. At last he fell down, and could not get up again. So he lay there stretched upon the pile of fruit looking like something dead. Before long all the other little pigs were running about like crazy things, and grunting and quarreling; but they always came back to the heap, and ate, and ate, and ate till they fell down too, and lay there in a pile. Last of all, the old mother fell down on top of all her little pigs: and there they were, not able to help themselves or get out of the way. What was the matter with them? Those cherries had been soaking all winter in poison; they were full of it; the pigs ate them; they were poisoned; so they lay there sick and helpless.

Night came on. There was light in the house, and singing and laughing: but in the road it was very, very dark. Late in the night a man came out of the house and tried to cross the road; his legs were weak too; he staggered and groped, and did not seem to know where he was going. All of a sudden he stumbled over the pigs and fell flat among them. He tried to crawl over them, but he only got more and more mixed up among them. At last he lay still and fell asleep, right there! That was not all! Another man came out and tried to cross, and another, and another. They fell down on top of each other; they were not able to get much farther. When daylight came, and people passed that way, they found them there—cherries, pigs, men, all in a heap together! O shame! But what was the matter with the men? They had been drinking some of the very poison in which those cherries had soaked. That man who had the barrel had poured the poison off into a pitcher before he emptied the cherries into the road. The pigs ate the cherries, the men drank the poison. It hurt them; it made them drunk.

What was that poison? It was brandy, cherry brandy. That man kept a tavern or saloon.

Why did he sell them brandy?

Who paid him for selling the liquor? What effect has whiskey on men? What would liquor make you do if you should drink it?

## PLEDGE:

A pledge we make, no wine to take;

Nor brandy red, to turn the head;

Nor whiskey hot, that makes the sot;

Nor fiery rum, that ruins home.

We will not sin, by drinking gin—

And lager, too, will never do:

No ale—no beer—but water clear!

All repeat the pledge in concert. The children should be encouraged to sign a pledge. The teacher must judge as to the way it is best for this to be done.

*It is the duty for all teachers to train their pupils to total abstinence boys and girls.*

## GOLDEN THOUGHTS.

[These can be used by the live teacher after morning exercises, or they can be written out and distributed among the class, or one may be written on the black-board each day.]

An effort to display is a conscious confession of weakness.

To have ideas is to gather flowers; to think is to weave them into garlands.

Joy and Temperance and Repose  
Slam the door on the doctor's nose.

—LONGFELLOW.

Of all bad things by which mankind are cursed  
Their own bad tempers are the worst.

—R. CUMBERLAND.

It is only the vulgar who are always fancying themselves insulted. If a man treads on another's toe in good society, do you think it is taken as an insult?

—I feel within me  
A peace above all earthly dignities,  
A still and quiet conscience.

—SHAKESPEARE.

Truth shall conquer at the last,  
For round and round we run,  
And ever the right comes uppermost.  
And ever is justice done.—MINER CHASE.

## NOTEWORTHY EVENTS AND FACTS.

## DOMESTIC.

Closing Exercises of the Chautauqua Assembly took place Aug. 26th.

Lieut. Greely attended the Scientific Association at Montreal, in response to urgent invitation from the Society. A dinner was given in his honor.

A severe storm in the north and west capsized a steamer on the Ohio river, entirely demolished a village in Ill., destroyed crops, and did much other damage.

A brutal fight was carried on for hours on an excursion barge down N. Y. Bay. One man was killed—several arrests made.

A mob of several hundred strikers in the Hocking Valley attacked the guards of one of the mines and shot three of them.

A Williamsburgh man, knocked down, kicked, and severely injured a man whom he took to be a "temperance spy."

New York Aldermen, Aug. 30th, passed over the Mayors veto the resolution of the city's consent to the Broadway Surface Railroad, by which action they gave away for nothing a franchise, for which the city might have obtained \$1,000,000.

Dr. Oliver Wendell Holmes has just passed his 75th birthday, and is as bright and sparkling as ever, the Boston Transcript describes him as a living illustration of the immense brain power that may be wrapped up in a small fleshy parcel.

Natchez, Miss., will soon celebrate the second centennial anniversary of its settlement.

Bishop G. F. Pierce, of the Methodist Episcopal Church South, is ill at his home, in Sunshine, near Sparta and is not expected to live.

## FOREIGN.

The mounted infantry for the Gordon relief expedition have started for Wady Halfa. They will ascend the river to Asstout and go from there on camels to Khartoum.

The British Scientific Congress met at Montreal, Can. Admiral Wolsey has been given command of the Khartoum Expedition.

The French captured Foo Chow.

A letter dated June 15th, has been received from Gen. Gordon, saying that Khartoum can hold out until the middle of Oct.

Italians are panic stricken over the cholera outbreak there. In some places physicians have been attacked under the delusion that they administered poison.

China has not yet declared war upon France.

Public opinion in Cuba strongly favors a new commercial treaty between Spain and the United States.

The project for a conference to discuss matters in relation to the Congo country has been abandoned. Prince Bismarck approves of the federation of the free States of Central Africa, but considers that a conference at this time would be premature.

The Pekin Government is trying to strengthen the war feeling as much as possible.

QUEEN VICTORIA has completed the 45th year of her reign. The reigns of only three other English sovereigns have exceeded hers in length. They are that of Henry III, which lasted 56 years; Edward III, 50 years; and George III, 60 years.

THE citizens of Watska, a small village of Eastern Illinois, have bored about three hundred artesian wells, in which is found sulphur in solution. As an effect of the use of this water, the general health is so much better, that, where six physicians found a large practice, now two are barely supported.

## HORSFORD'S ACID PHOSPHATE.

FOR LEMONS OR LIME JUICE,  
is a superior substitute, and its use is positively beneficial to health.

## BOOK DEPARTMENT.

## NEW BOOKS.

**A BOY'S WORKSHOP.** By a Boy and His Friends. With an introduction by Henry Randall Waite. Boston: D. Lothrop & Co. \$1.00.

"Just what I want!" all the boys will say in chorus. What boy doesn't long to "make something"? And how many are disgusted with the numberless books that tell them so finely everything but what they want to know! But this book begins at the beginning; it is thoroughly practical, it tells just "the how" of all the work that a boy wants to do.

It doesn't end either with a boy's recreation and fun; more than his immediate pleasure, his permanent happiness and usefulness is forwarded by this book; it is right in step with the movement to develop brain, and hands together.

The contents of the book include instructions about furnishing the workshop; how to use the different tools; how to make various useful and ornamental articles; how to make a wooden tent, how to photograph; how to tie the different knots in ropes, and much other useful information. The illustrations are right to the point and increase the value of this book that every boy wants and ought to have.

**THE STATE IN ITS RELATION TO EDUCATION:** By Henry Craik. New York. MacMillan & Co.

The growth of the English State system of National Education is the object of this work. The efforts which were first made, the compromises effected, the changes and modifications introduced during the last fifty years, are all detailed. At every point the English National educational system bears traces of its peculiar growth, and shows itself to be the result of compromise. Every page indicates a mind fully alive to present as well as past issues, and a conscientious consideration of disputed points. Nothing can be more interesting to the real American student than the growth of educational methods in the parent country. Their circumstances are different from ours—and so their methods must differ from ours—but, under all, the same principles are found at work. We commend the book to our thoughtful readers.

**THE PRINCESS: A MEDLEY.** By Alfred Lord Tennyson. Edited with Notes by W. J. Rolfe, A.M. Boston: James R. Osgood & Co.

The text is printed from that of the latest English edition, with the correction of a few obvious errors. The editor has followed the poet's orthography (except in words like *color*, *honor*, etc.), and his restricted use of the apostrophe in past tenses. In the Notes all the "various readings" are given. "Much of the work was done," the editor says, "full twenty-five years ago, when I read *The Princess* with a class of girls in school. The few obscurities that baffled us all then were pretty well cleared up in going through the poem with another class a few years later." This book adds another to the valuable contributions to the study of English literature so frequently issuing from the American press. Nothing shows more clearly the real advance in art making, in better studies, and more methodical plans, than the demand for such an excellent volume as this.

**DOLAN'S DRILL TABLES** in Addition, Subtraction, Multiplication and Division. Adapted to Graded and Ungraded Schools, by J. C. Dolan, Principal Hancock Public Schools. Pittsburgh, Pa.

The aim of these tables is to develop thought and the power of expressing it and to systematize the work of mastering the four fundamental operations in Written Arithmetic. To secure this twofold object, the tables are adapted to both the intellect and the school-room. In the use of the tables, the elements of time and Rhythm are introduced. A persistent writing of results is required to develop written expression; and a record of each pupil's advancement is kept to foster a spirit of emulation. The plan contemplates more than the mere development of number; for arithmetic proper forms but one of the important factors of the system. It is an eminently practical book.

**ARITHMETICAL AIDS.** 1. Counters. 2. Material for Keeping Store. 3. Pamphlets containing Explanations and Hints in regard to Arithmetical Divisions. Houghton, Mifflin & Co. Boston: Box, 20 cents.

In the box will be found strips of straw board upon which circles have been printed. The longer strips are to be retained just as they are,—10 inches long and one inch wide. The remaining strips are to be cut into separate squares or counters. There will then be 18 strips of "tens" and about 60 loose counters. The plan adapted to all our schools. In materials for keeping

store will be found strips of manilla board seven inches long; an inspection of them will readily show how the teacher is to cut them up in order to make them ready for use. All this is a part of the great work the New Education so earnestly advocates, viz: "Education by Doing."

**MONEY LETTERS.** A Royal Game for Social Amusement and Instruction, by S. J. Beighel, 335 Liberty St. Pittsburgh, Pa. 50 cents.

The fundamental idea of the game is to combine the different denominations of U. S. Money, and the letters of the alphabet so that each letter shall have a value in dollars or cents. These combinations are printed in pairs, so that each card shall have two different letters and values, and no letter the same value on two cards. The system is intended to afford instructive social amusement. The game is so simple that a child, in the first reader at school, learns it in five minutes, while the college student finds it taxes his perceptive faculties and memory to the utmost. The system has great merit. As a method of home culture as well as school discipline it might become of great educational value.

**FIRST SET. GRAPHIC READING LEAFLETS FOR PRIMARY CLASSES.** By A. B. Guilford and Otto Ortel, Primary Teachers, Union Hill, N. J. New York: A. Lovell & Co. These "Leaflets" are printed on both sides of eighteen large paged card-boards, illustrated, and are designed for use before books are placed in the hands of children. But one method is used. There are in the text frequent repetitions of the words taught, and the lessons are placed on detached leaves. By this means the auxiliary of newness is gained, for the child does not come in contact with lessons until such time as the teacher may direct. They are based on the principle that a word is learned by oft-repeated acts of association with the idea it represents, and with other words recalling other ideas. We heartily commend the method employed, the frequency of repetition, the quality of the text, and the plan of presenting lessons on separate cards.

**THE LAY OF THE LAST MINSTREL,** Sir Walter Scott, and **MARMION.** By the same. New York: T. Y. Crowell & Co. \$1.25 per vol.

It gives one an indescribably ancient feeling to read again those elaborate, tranquil "introductions" in which the good Sir Walter takes the public into his confidence with such calm judicial unreserve. But the simple vigor of the poems themselves seems to contain a lasting freshness.

Messrs. Crowell have issued the present volumes in reprint from the latest Edinburgh edition, with notes and an appendix. They belong to the "Red Line" series and appear in excellent form with very handsome and showy cloth covers.

**THE ORIGIN OF SPECIES BY MEANS OF NATURAL SELECTION, or the Preservation of Favoured Races in the Struggle for Life.** By Charles Darwin, M.A., F.R.S. In two double paper-covered numbers. 80 cents each. J. Fitzgerald, New York.

No comment is needed on the character of this standard work. Whatever any one may think concerning Darwinianism, no man at all intelligent in the progress of modern thought can fail to become familiar with this work. It contains a vast amount of information, and an incredible number of facts interesting to all. Darwin was a most patient and thorough observer and worker, and as such is receiving the universal thanks of the scientific world.

**NO. ONE, AND HOW TO TAKE CARE OF HIM:** A Series of Popular Talks on Social and Sanitary Science. By Joseph J. Pope. Funk & Wagnalls. N. Y. Paper. 15 cents.

This lively and suggestive little book of 158 pages contains six talks on the: Human Lamp, and How to Trim it. Good Cheer; or, Number One's Larder. Table Luxuries; or, Coffee, Cayenne, Cigars, and Cognac. Work and Play; or, Why Jack's a Dull Boy. Fashion and Figure; or, The Mistakes of our Modern Wardrobes. Our Hidden Enemies—Dust and Dirt; What They Are, and What They Contain. Fifteen cents will be well expended in the purchase of this volume.

**THE TONIC SOL-FA MUSIC COURSE FOR SCHOOLS.** Book I. By Daniel Bachelder and Thomas Charnburg. Boston: F. H. Gilson, Chicago, S. R. Winchell & Co.

This book contains exercises in the First and Second Steps. The First Step develops the first, third, and fifth tones of the Scale, making together the Tonic Chord, the basis of harmony; and also elementary studies in time. The Second Step introduces the second and seventh tones of the scale, making, with the fifth, the Chord of the Dominant.

**THE HOME IN POETRY:** By Laura C. Holloway. Funk & Wagnalls. N. Y. Paper. 25 cents.

Here are gathered together many of the "old favorites," poems that have touched the hearts and sweetened the lives of our English-speaking, home-loving race. The selections have been made with discrimination, and evince the broad sympathy and vigilant industry of the accomplished raconteur.

**EXAMINATION QUESTIONS AND OUTLINE WORK.** Public Schools, Wilkesbarre, Pa. A. W. Potter, Principal. This is a complete synopsis of the work of these schools. It gives a practical view of what is being done, and contains just the information practical teachers need. If all our schools would publish such syllabuses there would be a mass of information exceedingly valuable for comparative study.

## LITERARY NOTES.

"Jackanapes" is the title of a delightfully readable little story by Juliana Horatia Ewing, published in pamphlet form by Messrs. Roberts Brothers, Boston. It is illustrated with grace and spirit by Randolph Caldecott. Price 30 cts.

A work is soon to appear in the Standard Library, (Funk & Wagnalls), under the title "A Yankee School Teacher in Virginia," by Lydia Wood Baldwin. It presents sketches of life during the transition state following the close of the war, as seen by one of New England's young school ma'ams who devoted herself to the education of the colored race.

A "Life of the Hon. James G. Blaine," by Charles Wolcott Balestier, will be issued by R. Worthington, New York. This volume has been read in proof by Mr. Blaine, and has his sanction as to its accuracy. It is a full but succinct record of his life. A sketch of the life of John A. Logan is appended.

Prof. Edward M. Shepard, of Drury College, Springfield, Mo., and author of Economic Tract No. XII., "The Work of a Social Teacher," has written a Systematic Mineral Record, with a synopsis of terms and chemical reactions used in describing minerals, for instructors and students in mineralogy. The book is small quarto in size and strongly bound in cloth. It was suggested by the serviceableness of Prof. Alphonso Woods' Plant Record in the study of botany. The price is 60 cts., and the publishers, A. S. Barnes & Co., New York. This is the first book that enables the student to carefully analyze and record the result of his researches among the rocks and minerals of the country. It is adapted to any text-book of mineralogy. Steele's Geology, Page's Geology, and Davies' Surveying, with chapters on Mining Engineering, edited by Prof. J. H. Van Amringe, of Columbia College, deserve mention in this connection.

## BOOKS RECEIVED.

**A Practical Method for Learning Spanish.** General Alejandro Ybarra. Boston: Ginn, Heath & Co.

**The Fainals of Tipton.** Virginia W. Johnson. New York: Charles Scribner's Sons. \$1.25.

**L'Evanjeliste.** Alphonse Daudet. Translated by Mary Neal Sherwood. New York: Funk & Wagnalls. Paper, 50 cts. Stories by American Authors. Vol. V. New York: Charles Scribner's Sons. 50 cts.

**Red Letter Poems.** By English Men and Women. New York: Thomas Y. Crowell & Co. \$1.25.

**The Elements of English Composition.** Miss L. A. Chittenden. Chicago: S. C. Griggs & Co. 90 cts.

**Walton's Complete Angler.** T. Y. Crowell & Co. New York: \$2.00.

**English Grammar.** Rev. J. F. Brooks. Springfield, Ills.: 617 South 5th St. 80 cts.

**Rutherford.** Edgar Fawcett. New York: Funk & Wagnalls. Paper, 25 cts.

**Manual of Assaying.** Walter Lee Brown. Chicago: Jensen, McClurg & Co. \$1.75.

**Seven Hundred Album Verses.** Compiled by J. S. Ogilvie. New York: J. S. Ogilvie & Co. Paper, 15 cts.

**Words: Their Use and Abuse.** Wm. Mathews, LL. D. Chicago: S. C. Griggs & Co. Cloth, \$2.00.

**Souder's History of the United States.** By Horace E. Souder. Phila.: J. H. Butler.

**ARRESTING THE PROGRESS OF CONSUMPTION AND HOLDING THE DISEASE IN CHECK.**

The action of Compound Oxygen in arresting the progress of Consumption and holding the disease in check has been very marked under our Treatment. The following is one of many cases:

"**WENTWORTH.** N. S. July 28th, 1882. Drs. STARKEY & PALEN. Dear Sirs:—I have been using Compound Oxygen about eleven months with good results. Other remedies had failed; physician gave me no encouragement, and seeing your advertisement I resolved to try it, but only as an experiment. When I had used it a few weeks, a decided improvement was apparent. Night sweats, vomiting after meals, raising of blood and other threatening symptoms were soon brought under control. My digestion improved; my appetite became good, indeed, my whole system seemed to undergo a change for the better during the first three weeks. During the time that has intervened the above-named symptoms have been held in check. I am much better at the present writing than I was a year ago. It is with feelings of gratitude that I acknowledge the great and unexpected benefit derived from your Treatment. I am not well, I do not expect to get well, as one of my lungs is considerably broken. But your Treatment, by controlling and holding in check my worst symptoms, will certainly prolong life indefinitely. R. BIRD."

Our "Treatise on Compound Oxygen," containing a history of the discovery and mode of action of this remarkable curative agent, and a large record of surprising cures in Consumption, Catarrh, Neuralgia, Bronchitis, Asthma, etc., and a wide range of Chronic diseases will be sent free. Address DRs. STARKEY & PALEN, 1109 and 1111 Girard St., Philadelphia.



